- 1 Attachment H2 T-Plant Complex
- 2 Addendum H SWOC Closure Units

3	Appendix H2-E
4	T-Plant Complex Operating Unit Group
5	277-T Outdoor Storage Area Dangerous Waste Management Unit
6	Closure Plan

1

WA7890008967, PART V, CLOSURE UNIT GROUP 7 T-PLANT COMPLEX

This page intentionally left blank.

H2-E-ii

1		Table of Contents	
2	E1	Introduction	1
3		E1.1 Unit Description	1
4	E1.1.	1 Maximum Waste Inventory	1
5	E2	Closure Performance Standard	1
6		E2.1 Clean Closure Levels	3
7	E3	Closure Activities	3
8		E3.1 Health and Safety Requirements	4
9		E3.2 Removal of Wastes and Waste Residues	5
10		E3.3 277-T Outdoor Storage Area Records Review and Visual Inspection	6
11		E3.4 Unit Components, Parts, and Ancillary Equipment	7
12		E3.5 Inspection of Units Before Decontamination	7
13		E3.6 Decontamination	7
14		E3.7 Identifying and Managing Contaminated Environmental Media	
15		E3.8 Identifying and Managing Waste Generated During Closure	
16		E3.9 Confirming Clean Closure	
17		E3.10Sampling and Analysis and Constituents to Be Analyzed	
18	E3.10	0.1 Sampling and Analysis Plan	9
19	E3.10	0.2 Target Analytes	9
20	E3.10	0.3 277-T Outdoor Storage Area SAP Schedule	9
21	E3.10	0.4 277-T Outdoor Storage Area Project Management	11
22	E3.10	0.5 Sampling Design	11
23	E3.10	0.6 Sampling Methods and Handling	19
24	E3.10	0.7 Analytical Methods	20
25	E3.10	0.8 Quality Control	20
26	E3.10	0.9 Data Verification	23
27	E3.10	0.10 Data Validation and Usability	27
28		0.11 Sampling and Analysis Requirements to Address Removal of Contaminated Gravel/soil	
29		0.12 Verification of VSP Input Parameters	
30		0.13 Documents and Records	
31		0.14 Revisions to the Sampling and Analysis Plan and Constituents to be Analyzed	
32	23.10	E3.11 Role of the Independent Qualified Registered Professional Engineer	
33		E3.12 Closure Certification	
34		E3.13 Conditions that will be Achieved when Closure is Complete	
35	E4	Closure Schedule and Time Frame	
36	E5	Closure Costs	30

PERMIT MODIFICATION REQUEST JULY 27, 2015

WA7890008967, PART V, CLOSURE UNIT GROUP 7 T-PLANT COMPLEX

1		
2	Tables	
3	Table E-1. Training Matrix for 277-T Outdoor Storage Area	5
4	Table E-2. Operating Records Review Summary	6
5	Table E-3 Target Analyte List	10
6	Table E-4. Visual Sampling Plan Parameter Inputs	16
7	Table E-5. Sample Preservation, Container, and Holding Time for Soil Samples	20
8	Table E-6. Project QC Sampling Summary	22
9	Table E-7. Concrete and Soil Analytical Performance Requirements	24
10	Table E-8. 277-T Outdoor Storage Area Closure Activity Description	30
11		
12	Figures	
13	Figure E-1. T-Plant Complex OUG 277-T Outdoor Storage Area	2
14	Figure E-2. T-Plant Complex OUG 277-T Outdoor Storage Area	2
15	Figure E-3. Focused Sample Locations on 277-T Outdoor Storage Area	18
16	Figure E-4. 277-T Outdoor Storage Area Closure Schedule Activities	30
17		
18	Attachments	
19 20	Attachment A. T-Plant 277-T Outdoor Storage Area RCRA Records Review and Visual Inspection Supporting Documentation	H2-E-a-i
21 22	Attachment B. T-Plant Unit Number Visual Sampling Plan Sampling Plan Supporting Documentation	H2-E-b-i
23		

H2-E-v

E1 Introduction

- 2 This appendix discusses closure activities for the T Plant Complex Operating Unit Group (OUG) (T Plant
- 3 Complex) 277-T Outdoor Storage Area dangerous waste management unit (hereinafter 277-T Outdoor
- 4 Storage Area). The U.S. Department of Energy (DOE) has agreed through a Consent Agreement and
- 5 Final Order with the Environmental Protection Agency (EPA) to close this dangerous waste management
- 6 unit (DWMU). The closure will be performed in accordance with the included schedule. This closure plan
- 7 complies with Washington Administrative Code (WAC) 173-303-610(2) through WAC 173-303-610(6)
- 8 "Dangerous Waste Regulations," "Closure and Post-Closure," and represents the baseline for closure and
- 9 the enforceable compliance requirements for conducting closure. Amendments to this closure plan will be
- submitted as a permit modification in accordance with WAC 173-303-610(3)(b).

11 E1.1 Unit Description

1

- 12 The 277-T Outdoor Storage Area is located west of 221-T Canyon Facility and north of the 221-T Tunnel.
- 13 The 277-T Outdoor Storage Area was previously used for storing containers of various sizes and volumes,
- and a variety of waste streams to ensure adequate capacity and operational flexibility to support T-Plant
- activities. The 277-T Outdoor Storage Area consists of two uncoated concrete pads and an asphalt area
- surrounding the 277-T Building.
- 17 The 277-T Outdoor Storage Area is 29 m (32 yd) on the south side by 29 m (32 yd) on the west side by
- 44 m (49 yd) on the north side by 29 m (32 yd) on the east side for a total approximate area of 1,081 m²
- 19 (1,293 yd²) (Figure E-1 and Figure E-2). The 277-T Building is not included in this closure plan.
- 20 The 277-T Outdoor Storage Area does not currently store dangerous, mixed or TSCA-PCB waste.
- 21 Dangerous waste container storage and treatment of dangerous, mixed, or TSCA-PCB waste within the
- 22 277-T Outdoor Storage Area will not be requested after Resource Conservation and Recovery Act of 1976
- 23 (RCRA) closure is complete.

24 E1.1.1 Maximum Waste Inventory

- No permitted RCRA waste container storage was identified during the T Plant operating records review.
- Therefore, no maximum waste inventory is presented. Weekly inspection records of <90-Day and satellite
- accumulation area (SAA) identified that 277-T Outdoor Storage Area stored non-dangerous, dangerous,
- mixed and TSCA-PCB waste.

29

E2 Closure Performance Standard

- 30 Closure performance standards for the 277-T Outdoor Storage Area will be based on requirements found
- in WAC 173-303-610(2), "Dangerous Waste Regulations," "Closure and Post-Closure," which require
- 32 closure of the facility in a manner that:
- Minimizes the need for further maintenance;
- Controls, minimizes or eliminates to the extent necessary to protect human health and the
- 35 environment, post-closure escape of dangerous waste, dangerous constituents, leachate, contaminated
- runoff, or dangerous waste decomposition products to the ground, surface water, groundwater, or the
- atmosphere; and
- Returns the land to the appearance and use of surrounding land areas to the degree possible given the nature of the previous dangerous waste activity.
- 40 These performance standards are addressed in the Sections E2.1, E3.9, and Table E-7 of this closure plan.

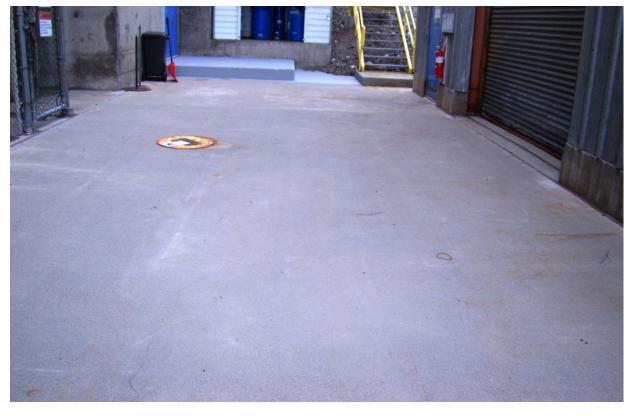


Figure E-1. T-Plant Complex OUG 277-T Outdoor Storage Area

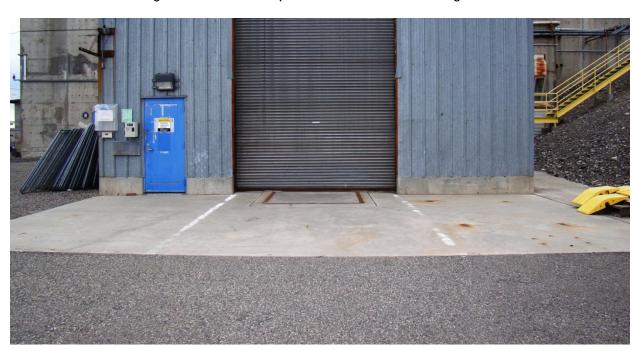


Figure E-2. T-Plant Complex OUG 277-T Outdoor Storage Area

56

2

3 4

1 E2.1 Clean Closure Levels

- 2 The 277-T Outdoor Storage Area will be clean closed using clean closure levels required for soil. In
- accordance with WAC 173-303-610(2)(b)(i), clean closure levels for soil are the numeric cleanup levels
- 4 calculated using unrestricted use exposure assumptions according to the *Model Toxics Control Act*
- 5 (MTCA) (WAC 173-340, "Model Toxics Control Act—Cleanup") cleanup regulations (WAC 173-340-
- 6 700, "Overview of Cleanup Standards," through -WAC 173-340-760, "Sediment Cleanup Standards,"
- 7 excluding WAC 173-340-745, "Soil Cleanup Standards for Industrial Properties"). These numeric
- 8 cleanup levels have been calculated according to the requirements of WAC 173-303-610(2)(b)(i) as of the
- 9 effective date of this permit modification. These cleanup levels consider carcinogens, noncarcinogens,
- 10 groundwater protection, and ecological indicator values.
- A null hypothesis is generally assumed true until evidence indicates otherwise. The null hypothesis, as
- defined in WAC 173-340-200, "Definitions," for 277-T Outdoor Storage Area, is that concrete/asphalt is
- assumed to be above unrestricted use cleanup levels, commonly called MTCA (WAC 173-340) Method B
- cleanup levels. Therefore, the site is presumed to be contaminated. Rejection of the null hypothesis means
- 15 sampling and analysis results of the site indicated that gravel/soil contains contamination below the
- 16 MTCA (WAC 173-340) Method B cleanup levels. Sampling and analysis will be used to determine
- whether the null hypothesis can be rejected, thereby confirming that the concrete and asphalt meet
- 18 closure performance standards in accordance with MTCA [WAC 173-340] Method B.
- 19 Should sampling and analysis provide a basis that the null hypothesis can be accepted, such an event will
- be considered an unexpected event during closure, and the gravel/soil would then be identified as
- 21 contaminated environmental media and managed in accordance with Section E3.7.

22 E3 Closure Activities

- As a storage unit, clean closure determination for 277-T Outdoor Storage Area is partially based on a
- 24 review of the operational history, operating records (including any dangerous and mixed waste releases),
- waste management records, and visual inspection of the area to verify that waste-related staining is not
- 26 present. Based on these reviews, the 277-T Outdoor Storage Area is a candidate for clean closed under
- 27 RCRA. Sampling of the concrete pads and asphalt were developed utilizing the results of the records
- 28 review and visual inspection (EPA/240/R-02/005, Guidance on Choosing a Sampling Design for
- 29 Environmental Data Collection [EPA QA/G-5S], and Ecology Publication 94-111, Guidance for Clean
- 30 Closure of Dangerous Waste Units and Facilities), and will be conducted via a SAP (Section E3.10). The
- 31 objective of the sampling described in this document is to determine if the MTCA (WAC 173-340)
- 32 Method B closure performance standards for soil were met, demonstrating clean closure of the 277-T
- 33 Outdoor Storage Area.
- 34 The following closure activities are required to achieve and verify clean closure for concrete and asphalt:
- Remove all dangerous, mixed or TSCA-PCB LLW waste inventory. (Completed. See Section E3.2.)
- Review waste container storage, operating, and inspection records for periods of dangerous, mixed, and TSCA-PCB waste storage. (Completed. See Section E3.3.)
- Perform a visual inspection of the concrete and asphalt pads. (Completed, See Section E3.3.)
- of form concrete/asphalt sampling and analysis to confirm clean closure standards are met.
- If detected during initial sampling efforts, remove any contaminated environmental media present.

- Resample, as necessary, to confirm that MTCA (WAC 173-340) Method B clean-closure levels have been met.
- Transmit closure certification to the Washington State Department of Ecology (Ecology).

4 E3.1 Health and Safety Requirements

- 5 Closure will be performed in a manner to ensure the safety of personnel and the surrounding environment.
- 6 Qualified personnel will perform any necessary closure activities in compliance with established safety
- 7 and environmental procedures. Personnel will be equipped with appropriate personal protective
- 8 equipment. Qualified personnel will be trained in applicable safety and environmental procedures and
- 9 have appropriate training and experience in sampling activities. Field operations will be performed in
- accordance with applicable health and safety requirements.
- 11 The Permittees have instituted training or qualification programs to meet training requirements imposed
- by regulations, DOE orders, and national standards such as those published by the American National
- 13 Standards Institute/American Society of Mechanical Engineers. For example, the environmental, safety,
- and health training program provides workers with the knowledge and skills necessary to execute
- assigned duties safely. The Hanford Facility RCRA Permit, Attachment 5, describes specific requirements
- 16 for the Hanford Facility Personnel Training program. The Permittees will comply with the training matrix
- shown in Table E-1, which provides training requirements for Hanford Facility personnel associated with
- 18 277-T Outdoor Storage Area.
- 19 Project-specific safety training addressed explicitly to the project and the day's activity will include the
- 20 following:
- Training to provide the knowledge and skills that sampling personnel need to perform work safely
- and in accordance with OA requirements
- Samplers are required to be qualified in the type of sampling being performed in the field.
- 24 Pre-job briefings will be performed to evaluate activities and associated hazards by considering the
- 25 following factors:
- Objective of the activities
- Individual tasks to be performed
- Hazards associated with the planned tasks
- Environment in which the job will be performed
- Facility where the job will be performed
- Equipment and material required
- Safety protocols applicable to the job
- Training requirements for individuals assigned to perform the work
- Level of management control
- Proximity of emergency contacts
- Training records are maintained for each employee in an electronic training record database.
- 37 The Permittees training organization maintains the training records system.

			Training Catego	ory ^a	
Permit Attachment 5 Training Category	General Hanford Facility Training	Contingency Plan Training	Emergency Coordinator Training	Operations Train	ing
SWOC Closure Unit DWTP Implementing Plan	Orientation Program	Emergency Response (Contingency Plan)	Emergency Coordinator Training	General Waste Management and Closure Support	Container Management
		Job Title/Pos	ition		
Non-Facility Personnel	X				
NCO	X	X		X ^b	X ^b
Operations Supervisor	X	X	X	X ^b	
ECO	X			Xb	
Waste Service Provider	X			X ^b	X ^b
Sampler	X			Xb	

Table E-1. Training Matrix for 277-T Outdoor Storage Area

DWMU = dangerous waste management unit DWTP dangerous waste training plan ECO environmental compliance officer

NCO = nuclear chemical operator

SWOC = Solid Waste Operations Complex

E3.2 Removal of Wastes and Waste Residues

- 2 No dangerous, mixed or TSCA-PCB waste is currently stored at the 277-T Outdoor Storage Area. Waste
- 3 management records indicate that dangerous, mixed, and TSCA-PCB waste has been previously stored in
- 4 5 the 277-T Outdoor Storage Area under <90-day and satellite accumulation area storage only. 277-T Outdoor
- Storage Area will no longer be used for dangerous, mixed, or TSCA-PCB waste storage. The 277-T
- 6 Outdoor Storage Area will be maintained in accordance with WAC 173-303-610 in a manner that
- 7 demonstrates that all steps have been taken and will continue to be taken to prevent threats to human
- 8 health and the environment from the unclosed but not operating DWMU, including compliance with all
- 9 applicable permit requirements. Inspection requirements during the closure period are identified in
- 10 Section E3.5.
- 11 Dangerous waste or waste residues are not anticipated at this unit. There are no containers or structures in
- 12 277-T Outdoor Storage Area (which excludes the 277-T Building) where waste could be present. Waste
- 13 residues may be found in the steam blow-down drain area of the 277-T Outdoor Storage Pad, so that area
- 14 will be subject to focused sampling to determine if there is any residue. Any unanticipated waste or waste

a. Refer to Plant Complex DWTP for a complete description of coursework in each training category.

b. Training received is commensurate with the duties performed. Individuals in this category who do not perform these duties are not required to receive this training.

- 1 residues would be in the form of contaminated concrete/asphalt and will be managed as contaminated
- 2 environmental media in accordance with Section E3.7.

3 E3.3 277-T Outdoor Storage Area Records Review and Visual Inspection

- 4 To support the development of this closure plan and the SAP, a review of the T-Plant Complex OUG
- 5 operating records was completed (Table E-2). The records review included the following RCRA
- 6 operating record documents: facility operating logbooks (including spill reports) and weekly inspections.
- 7 The RCRA operating record documents that were reviewed focused on the period during active
- 8 dangerous, mixed, and TSCA-PCB waste storage for the T-Plant Complex OUG Outdoor Container
- 9 Storage Areas addressed under the T-Plant Complex OUG Outdoor Container Storage Areas closure
- plans. The records review included the time period from October 1985 through July 2010 and extended
- through June 2013. The records review indicated no releases of dangerous, mixed or TSCA-PCB waste
- 12 occurred in the 277-T Outdoor Storage Area.
- Waste management records indicate that dangerous, mixed and TSCA-PCB waste has been previously
- stored in the 277-T Outdoor Storage Area in <90-day and satellite accumulation storage areas.
- 15 Visual inspections were performed on August 29, 2013, and June 1, 2015, to identify any dangerous
- waste related staining, major cracks or crevices, and seams in the 277-T Outdoor Storage Area. No waste
- 17 related staining was identified during the visual inspection. During the visual inspection on June 1, 2015,
- 18 two concrete seams and a steam condensate blow down line drain were identified for focused sampling.
- 19 Focused sample locations are detailed in Figure E-3.
- 20 Supporting documentation for the RCRA operating records review and visual inspection are documented
- 21 in Attachment A and include the T-Plant Daily Operating Logbook Review sheet, T-Plant Operation
- 22 Logbook Review sheet, , the T-Plant Daily Dangerous Waste Inspection Checklist Review sheet,
- 23 Summary of T-Plant Weekly Dangerous Waste Inspection Checklist Review sheet, T-Plant Complex
- 24 277-T Outdoor Container Storage Area visual inspection sheet, and any additional supporting
- 25 information.
- 26 Based on the operating records review, waste management records, and visual inspections, only
- 27 confirmation sampling and analysis to verify clean closure will be performed.

Table E-2. Operating Records Review Summary

Line	Document Title	Document Type	Facility	Start Date	End Date	Items of Concern Noted
1	T-Plant Daily Operating Logbook	Logbook	277-T OSA	01/02/1985	06/22/2010	No
2	T-Plant Operation Logbook	Logbook	277-T OSA	07/27/2010	04/07/2011	No
3	Waste Management Area Daily Inspection Data Sheet	Daily Inspection	277-T OSA	08/29/2005	12/01/2005	No
4	Waste Management Area Daily Inspection Data Sheet	Daily Inspection	277-T OSA	10/01/2007	04/22/2013	No
5	Weekly Surveillance Log, <90-day Storage Areas and Satellite Accumulation Areas	Weekly Inspection	277-T OSA	06/07/1991	12/20/1999	No

Line	Document Title	Document Type	Facility	Start Date	End Date	Items of Concern Noted
6	Treatment Facility Waste Management Weekly Inspection Log Sheet Treatment Facility Waste Management Area Daily Inspection Log Sheet Treatment Facility Waste Management Area Weekly Inspection Data Sheet Treatment Facility Waste Management Area Daily Inspection Data Sheet Weekly Waste Area Surveillance T Plant Daily Waste Management Area Inspection Data Sheet	Weekly and Daily Dangerous Waste Inspections	277-T OSA	01/2000 01/2005	12/2002 12/2007	No
7	Waste Management Area Daily Inspection Report Weekly Waste Area Surveillance	Weekly and Daily Inspections	277-T OSA	2003	2004	Yes ^a
8	T-Plant Weekly Waste Management Area Inspection Data Sheet	Weekly Inspection	277-T OSA	10/18/2007	06/12/2013	No

Table E-2. Operating Records Review Summary

N/A = not applicable

a = A container of Insulkote was leaking. Product was determined to be non-regulated material.

OSA = Outdoor Storage Area

E3.4 Unit Components, Parts, and Ancillary Equipment

2 The 277-T Outdoor Storage Area does not have any unit components, parts, or ancillary equipment.

3 E3.5 Inspection of Units Before Decontamination

- 4 Decontamination activities are not planned for 277-T Outdoor Storage Area, however, to prevent threats
- to human health and the environment during the closure period, the 277-T Outdoor Storage Area will be
- 6 inspected in accordance with WAC 173-303-320(2), "General Inspection." Inspections of the 277-T
- 7 Outdoor Storage Area will be performed annually, until the clean-closure certification is approved by
- 8 Ecology, and will verify the following:
- Posted warning signs at each entrance to the T Plant Complex are present, legible, and visible at
 7.6 m (25 ft).
- No evidence of unusual conditions exists at the closing DWMU site.

12 E3.6 Decontamination

- 13 Decontamination activities are not anticipated for 277-T Outdoor Storage Area. As specified in Ecology
- Publication 94-111, Section 5.3, "Decontaminating Debris," if sampling and analysis results indicated
- 15 contamination above clean-closure performance standards, then the identified sampling areas will be
- decontaminated. Decontamination will be performed using the debris-specific, technology-based

- 1 Alternative Treatment Standard for Hazardous Debris specified in 40 CFR 268.45 Table 1 (incorporated
- 2 by reference at WAC 173-303-140(2)(a)) and meet the debris-specific performance standards specified
- 3 therein.
- The areas of contamination will be physically extracted to a minimum depth of 0.6 cm (0.25 in.) of the
- 5 surface layer. Physical extraction techniques will include one of the following methods as defined in
- 6 Table 1 of 40 CFR 268.45, "Alternative Treatment Standards for Hazardous Debris":
- 7 Abrasive Blasting
- Scarification, Grinding, and Planing
- 9 Spalling

10 E3.7 Identifying and Managing Contaminated Environmental Media

- 11 The records review and visual inspection outlined in Section E1.1.1 did not identify any documented
- 12 releases of MLLW or TSCA-PCB LLW or the presence of potentially contaminated environmental
- media. Contaminated environmental media removal is not anticipated.
- 14 Should clean-closure verification sampling result in removal of the 277-T Outdoor Storage Area
- asphalt/concrete down to the level of the underlying soil, then a potential for contaminated environmental
- media (soil) could exist. If contaminated environmental media (soil) is identified as a result of clean-
- 17 closure verification sampling activities (i.e., samples indicate contamination above clean-closure
- 18 standards), the nature and extent of contamination will be evaluated. Contaminated soil will be removed
- using equipment capable of removing the quantity of material required to complete removal and clean
- 20 close the 277-T Outdoor Storage Area. Following removal of contaminated soil, additional confirmatory
- sampling efforts will be conducted for 277-T Outdoor Storage Area in accordance with the approved
- closure plan SAP (see Section E3.10.1) to demonstrate clean-closure levels.
- 23 If contaminated soil removal is required from 277-T Outdoor Storage Area, it will be managed as a newly
- 24 generated waste stream in accordance with WAC 173-303-610(5). Contaminated soil generated during
- 25 the closure period must be properly disposed. The contaminated soil will be a newly generated waste and
- 26 must be handled in accordance with all applicable requirements of WAC 173-303-170, "Requirements for
- 27 Generators of Dangerous Waste," through 173-303-230, "Special Conditions." The contaminated soil will
- be containerized, labeled, sampled for waste characterization, designated as a dangerous or nondangerous
- waste, stored, and transported offsite where it will be treated (if necessary) to meet LDRs in 40 CFR 268,
- 30 "Land Disposal Restrictions," incorporated into WAC 173-303-140(2)(a), "Land Disposal Restrictions,"
- 31 by reference, then ultimately disposed of in an appropriate waste disposal facility.

E3.8 Identifying and Managing Waste Generated During Closure

- 33 If concrete/asphalt removal is required for decontamination (Section E3.6), the resulting material will be
- managed as a newly generated waste stream in accordance with WAC 173-303-610(5). Waste generated
- during the closure period must be properly disposed. The newly generated waste must be handled in
- accordance with all applicable requirements of WAC 173-303-170, "Requirements for Generators of
- Dangerous Waste," through 173-303-230, "Special Conditions." The concrete/asphalt will be
- 38 containerized, labeled, sampled for waste characterization, designated as a dangerous or nondangerous
- waste, stored, and transported offsite where it will be treated (if necessary) to meet LDRs in 40 CFR 268,
- 40 "Land Disposal Restrictions," incorporated into WAC 173-303-140(2)(a), "Land Disposal Restrictions,"
- by reference, then ultimately disposed of in an appropriate waste disposal facility.

1 E3.9 Confirming Clean Closure

- 2 The 277-T Outdoor Storage Area will be clean closed. A review of applicable RCRA operating record
- documents was completed to determine the release history of the area. In addition to the records review,
- 4 visual inspections of the 277-T Outdoor Storage Area were performed to identify any dangerous
- 5 waste-related staining of the storage area pad, major cracks or crevices, and seams. The records review
- 6 and visual inspections are detailed in Section E3.3 and documented in Attachment A.
- 7 All dangerous, mixed and TSCA-PCB waste has been previously removed, and there have been no
- 8 documented spills or releases of dangerous or mixed waste. Therefore, post-closure escape of dangerous
- 9 waste and any associated dangerous waste constituents, leachate, contaminated runoff, and dangerous
- 10 waste decomposition products to the ground, surface water, groundwater, or air is not anticipated.
- Final clean closure will be confirmed for the 277-T Outdoor Storage Area. Sampling and analysis of the
- 12 277-T Outdoor Storage Area concrete and asphalt pads will occur to confirm that cleanup standards for
- soil have been achieved. If sample results indicated contamination above clean-closure levels,
- contaminated concrete/asphalt will be removed and managed in accordance with Section E3.7.

E3.10 Sampling and Analysis and Constituents to Be Analyzed

- 16 The SAP summarizes the sampling design used and associated assumptions based on the knowledge of
- 17 the 277-T Outdoor Storage Area. The sampling design includes input parameters used to determine the
- 18 number and location of samples.

15

19 E3.10.1 Sampling and Analysis Plan

- 20 Sampling and analysis of the concrete and asphalt pads of the 277-T Outdoor Storage Area will be
- 21 conducted to confirm that clean closure levels have been achieved. Sampling and analysis will be
- 22 performed in accordance with the sampling and quality standards established in this closure SAP.
- 23 The closure SAP details sampling and analysis procedures in accordance with SW-846, *Test Methods for*
- 24 Evaluating Solid Waste: Physical/Chemical Methods, Third Edition; Final Update IV-B; the American
- 25 Society for Testing and Materials (ASTM) Annual Book of ASTM Standards; and applicable
- 26 U.S. Environmental Protection Agency (EPA) guidance. Sampling and analysis activities will meet
- 27 applicable requirements of SW-846, the ASTM standards, EPA-approved methods, and *Hanford*
- 28 Analytical Services Quality Assurance Requirements Documents (HASQARD) (DOE/RL-96-68) at the
- 29 time of closure. This SAP was also developed using Ecology Publication 94-111, Section 7.0, "Sampling
- and Analysis for Clean Closure," and EPA/240/R-02/005.

31 E3.10.2 Target Analytes

- Waste management records indicated that dangerous, mixed, and TSCA-PCB waste has been stored on
- 33 the 277-T Outdoor Storage Area. The target analytes for evaluation during closure sampling and analysis
- 34 were determined by reviewing the waste management records of the dangerous, mixed or TSCA-PCB
- 35 waste stored on the 277-T Outdoor Storage Area. Table E-3 provides the target analyte list and each
- 36 chemical abstract service (CAS) waste code.

37 E3.10.3 277-T Outdoor Storage Area SAP Schedule

- 38 Confirmation closure sampling and analysis will be performed in accordance with the closure plan
- 39 schedule in Section E4.

Table E-3 Target Analyte List

Target Analyte	CAS Number	Target Analyte	CAS Number
Arsenic (D004)	7440-38-2	Ethyl benzene (F003)	100-41-4
Barium (D005)	7440-39-3	Ethyl ether (F003)	60-29-7
Cadmium (D006)	7440-43-9	Methanol (F003)	67-56-1
Chromium (Hexavalent) (D007)	18540-29-9	Methyl isobutyl ketone (F003)	108-10-1
Lead (D008)	7439-92-1	Xylene (F003)	1330-20-7
Mercury (D009)	7439-97-6	o-Cresol (F004)	95-48-7
Selenium (D010)	7782-49-2	Benzene, nitro (F004)	98-95-3
Silver (D011)	7440-22-4	Pyridine (F005)	110-86-1
Benzene (D018) (F005)	71-43-1	2-nitropropane (F005)	79-46-9
Carbon tetrachloride (D019) (F001) (F002)	56-23-5	Carbon disulfide (F005) (P022)	75-15-0
Chloroform (D022)	67-66-3	Isobutanol (F005)	78-83-1
2,4-Dinitrotoluene (D030)	121-14-2	2-ethoxyethanol (F005) (U359)	110-80-5
Hexachoroethane (D034)	67-72-1	Toluene (F005)	108-88-3
Methyl ethyl ketone (MEK) (D035)(F005)	78-93-3	Acetaldehyde (I) (U001) ^a	75-07-0
Pentachlorophenol (D037)	87-86-5	Acetyl chloride (C,R,T)(U006) ^b	75-36-5
Tetrachloroethylene (D039) (F001) (F002)	127-18-4	Dichloroethyl ether (U025)	111-44-4
Trichloroethylene (D040)(F001)(F002)	79-01-6	1-Butanol (I) (U031)	71-36-3
Vinyl chloride (D043)	75-01-4	1,4-Diethyleneoxide (U108)	123-91-1
1,1,1-Trichloroethane (F001) (F002) (U226)	71-55-6	Ethane, 1,1'-oxybis-(I) (U117)	60-29-7
Chlorinated fluorocarbons (F001) (F002)	N/A	Formic acid (C,T) (U123)	64-18-6
Methylene chloride (F001) (F002)	75-09-2	2-Butanone, peroxide (R,T) (U160) ^b	1338-23-4
Chlorobenzene (F002)	108-90-7	Phosphorus pentasulfide (R)(U189) ^b	1314-80-3
1,1,2-trichloro-1,2,2- trifluoroethane (F002)	73-13-1	Furan, tetrahydro-(I) (U213) b	109-99-9
Ortho-dichlorobenzene (F002)	95-50-1	Cyanides (soluble cyanide salts), not otherwise specified (P030)	57-12-5

Table E-3 Target Analyte List

Target Analyte	CAS Number	Target Analyte	CAS Number
1,1,2-trichloroethane (F002)	79-00-5	Acetaldehyde, chloro- (P023) b	107-20-0
Acetone (F003)	67-64-1	Copper cyanide (P029) (as Cyanide)	544-92-3
N-butyl alcohol (F003)	71-36-3	Potassium cyanide (as Cyanide) (P098)	151-50-8
Cyclohexanone (F003)	108-94-1	Sodium cyanide (as Cyanide) (P106)	143-33-9
Ethyl acetate (F003)	141-78-6	Vanadium oxide V2O5 (P120)	1314-62-1
		Polychlorinated biphenyls (PCBs) (Arochlors)	1336-36-3

- a. Acetaldehyde is analyzed as a gas not as a solid. Acetaldehyde will not be analyzed.
- b. There are no previous records of analysis for this on the Hanford Site. The CAS number is not listed in the CLARC tables.

2 E3.10.4 277-T Outdoor Storage Area Project Management

- 3 The Permittees are responsible for planning, coordinating, sampling, preparing, packaging, and shipping
- 4 samples to the laboratory.

1

5 E3.10.5 Sampling Design

- 6 The primary purpose of sampling the 277-T Outdoor Storage Area OUG is to determine if analytical data
- 7 values exceed the MTCA (WAC 173-340) Method B clean closure performance standards.
- 8 This SAP utilized Ecology Publication 94-111, Section 7.0, "Sampling and Analysis for Clean Closure,"
- 9 to determine the type of sampling design that will be utilized to demonstrate clean closure. When
- designing the sampling plan, both focused and area wide (grid) sampling methods were considered.
- Ecology Publication 94-111, Section 7.2.1, identifies that area wide sampling is appropriate when the
- 12 spatial distribution of contamination at or from the closure unit is uncertain. Ecology Publication 94-111,
- 13 Section 7.3, "Sampling to Determine or Confirm Clean Closure," identifies the area wide sampling
- approach as generally appropriate for sampling to determine or confirm that clean closure levels are
- achieved. Focused sampling, as identified in Section 7.2.2 of Ecology Publication 94-111, is selective
- sampling of areas where contamination is expected or releases have been documented. Based on the
- records review and visual inspections performed for 277-T Outdoor storage Area (Section E3.3), there is
- 17 Teedras Tevico and Tisself and Tisself
- 18 no known contamination within the sampling area and no documented releases; however, the steam blow-
- down drain and cracks where the concrete and asphalt meet will be subject to focused sampling.
- 20 **Grid Sampling.** In grid sampling, samples are collected at regularly spaced intervals over space or time.
- 21 An initial location or time is chosen at random, and the remaining sampling locations are defined so that
- 22 locations are at regular intervals over an area (grid). Grid sampling is used to search for hot spots and to
- 23 infer means, percentiles, or other parameters. It is useful for estimating spatial patterns or trends over
- 24 time. This design provides a practical method for designating sample locations and ensures uniform
- coverage of a site, unit, or process.

H2-E-11

WA7890008967, PART V, CLOSURE UNIT GROUP 7 T-PLANT COMPLEX

- 1 **Judgmental (Focused) Sampling.** In focused sampling, the selection of sampling units (i.e., the number
- 2 and location and/or timing of collecting samples) is based on knowledge of the feature or condition under
- 3 investigation and on professional judgment. Focused sampling is distinguished from probability-based
- 4 sampling in that inferences are based on professional judgment, not statistical scientific theory. Therefore,
- 5 conclusions about the target population are limited and depend entirely on the validity and accuracy of
- 6 professional judgment. Probabilistic statements about parameters are not possible.
- 7 The quantity and location of area wide samples were determined using the Visual Sample Plan (VSP)
- 8 software. VSP is a tool used throughout Washington State and nationally that statistically determines the
- 9 quantity of samples required to accept or reject the null hypothesis based on input parameters specific to
- the 277-T Outdoor Storage Area.
- For area wide grid sampling determination in VSP, both parametric and nonparametric equations rely on
- assumptions about the data population. Typically, however, nonparametric equations require fewer
- assumptions and allow for more uncertainty about the distribution of data. Alternatively, if parametric
- assumptions are valid, the required number of samples is usually less than if a nonparametric equation
- was used. For 277-T Outdoor Storage Area, data assumptions were largely based on information obtained
- from a grouping of similar waste sites with the same type of constituents. Parameters from the 200-MG-1
- waste sites were approved by Ecology in the SAP (DOE/RL-2009-60, Sampling and Analysis Plan for
- 18 Selected 200-MG-1 Operable Unit Waste Sites), evaluated, deemed appropriate, and utilized for the input
- 19 parameters for 277-T Outdoor Storage Area. VSP parameter inputs and the basis for those inputs are
- detailed in Table E-4.
- 21 The decision rule for demonstrating compliance with the MTCA (WAC 173-340) Method B clean closure
- level has three parts:
- The 95 percent upper confidence limit on the true data mean must be less than the MTCA
- 24 (WAC 173-340) Method B clean closure level.
- No sample concentration can be more than twice the cleanup level.
- Less than 10 percent of the samples can exceed the cleanup level.
- Using a nonparametric test and the input parameters identified in Table E-4, VSP calculated that a
- 28 minimum of 20 samples is required to reject the null hypotheses with 95 percent confidence and ensure
- 29 that 277-T Outdoor Storage Area would not be mistakenly released as clean. For the purpose of utilizing
- 30 VSP software, the null hypothesis is to compare a site mean to a fixed threshold. Data will be evaluated to
- 31 ensure that less than 10 percent of the individual values exceed MTCA (WAC 173-340) Method B clean
- 32 closure performance standards and that no values are more than twice the cleanup level
- 33 Focused sampling is considered biased sampling and therefore cannot be statistically demonstrated to
- 34 meet the MTCA B closure performance standards. The decision criteria for the focused sampling results
- 35 will be a direct comparison to ensure individual values do not exceed the MTCA Method B clean-closure
- 36 performance standards.

Table E-4. Visual Sampling Plan Parameter Inputs

Parameter	Value	Basis	
Primary Objective of the Sampling Design	Compare a site mean or median to a fixed threshold	Reject the null hypothesis.	
Type of Sampling Design	Nonparametric	Data are not assumed to be normally distributed.	
Working Null Hypothesis	The mean value exceeds the threshold (WAC 173-340 "Model Toxics Control Act-Cleanup," Method B closure performance standards)	The null hypothesis assumes that the site is dirty requiring the sampling and analysis to demonstrate through statistical analysis that the site is clean.	
Area Wide Grid Sampling Pattern	Triangular	A triangular pattern provided an even distribution of sample locations over the 277-T Building dangerous waste management unit.	
Standard Deviation (S)	0.45	This is the assumed standard deviation value relative to a unit action level for the sampling area. The value of 0.45 is conservative, based on consideration of past verification sampling. MARSSIM suggests 0.30 as a starting point; however, 0.45 has been selected to be more conservative. (Number of samples calculated increases with higher standard deviation values relative to a unit action level.)	
Delta (Δ)	0.40	This is the width of the gray region. It is a user-defined value relative to a unit action level. The value of 0.40 balances unnecessary remediation cost with sampling cost.	
Alpha (α)	5%	This is the acceptable error of deciding a dirty site is clean when the true mean is equal to the action level. It is a maximum error rate since dirty sites with a true mean above the action level will be easier to detect. A value of 5% was chosen as a practical balance between health risks and sampling cost.	
Beta (β)	20%	This is the acceptable error of deciding a clean site is dirty when the true mean is at the lower bound of the gray region. A value of 20% was chosen during the data quality objectives process as a practical balance between unnecessary remediation cost and sampling cost.	
MARSSIM sampling overage	20%	MARSSIM suggests that the number of samples should be increased by at least 20% to account for missing or unusable data and uncertainty in the calculated value of n .	

Source: EPA 402-R-97-016, Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM).

PERMIT MODIFICATION REQUEST JULY 27, 2015

WA7890008967, PART V, CLOSURE UNIT GROUP 7 T-PLANT COMPLEX

- 1 Area-wide grid sample locations were determined using the area wide grid with a random start sampling
- 2 method run in the VSP software. Statistical analysis of systematically collected data is valid if a random
- 3 start to the grid is used. The 277-T Outdoor Storage Area length and width were entered into VSP to
- 4 determine the locations of the samples. The triangular grid sampling layout was determined to have an
- 5 even distribution over the entire 277-T Outdoor Storage Area providing the most representative data set
- 6 including coverage of the middle portion of the sampling area. The 20 samples will be taken from the
- 7 node locations indicated by the VSP software and will be assigned sample location identifications and
- 8 sample numbers using the Hanford Environmental Information System (HEIS).
- 9 The first node location was chosen at random by the VSP software, and the subsequent 19 sample
- 10 locations were assigned by the VSP software using a triangular grid sampling method. Supporting
- documentation for the VSP software sampling designations are documented in Attachment B.
- 12 The records review and visual inspections did not identify any staining or cracks in the flooring and there
- have been no documented releases of dangerous waste. As a conservative approach, three focused
- samples will be collected; one at the steam blow-down drain on the north side of the 277-T Building, and
- two at the seam surrounding the original concrete pad on the west side (see Figure E-3 which includes
- 16 focused and grid sample locations).

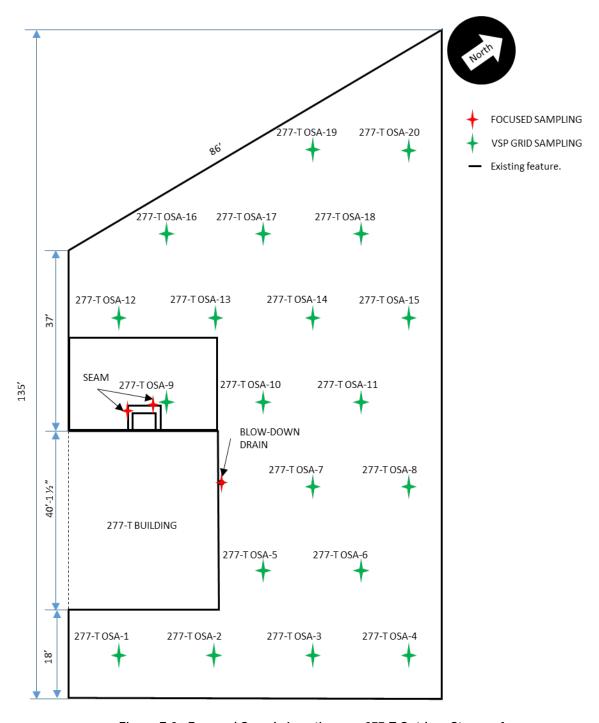


Figure E-3. Focused Sample Locations on 277-T Outdoor Storage Area

H2-E-18

1

2

1 E3.10.6 Sampling Methods and Handling

- The sample matrix will consist of concrete and asphalt chip or core samples collected in pre-cleaned
- 3 sample containers taken at a depth of no more than 2.54 cm (1 in.) below the surface of the concrete or
- 4 asphalt, unless staining or discoloration indicates contamination is below that depth. Concrete and asphalt
- 5 chip or core samples will be collected directly into containers at the chosen sample locations. To ensure
- 6 sample and data usability, sampling will be performed in accordance with established sampling practices,
- 7 procedures, and requirements pertaining to sample collection, collection equipment, and sample handling.
- 8 Sample container, preservation, and holding time requirements are specified in Table E-5 for concrete and
- 9 asphalt samples. These requirements are in accordance with the analytical method specified. The final
- 10 container type and volumes will be identified on the sampling authorization form and the
- 11 chain-of-custody form.
- 12 To prevent potential contamination of the samples, care will be taken to use decontaminated equipment
- 13 for each sampling activity.
- 14 Level I EPA pre-cleaned sample containers will be used for samples collected for chemical analysis.
- 15 Container sizes may vary, depending on laboratory-specific volumes/requirements for meeting analytical
- 16 detection limits.
- 17 The sample location, depth, and corresponding HEIS numbers will be documented in the sampler's field
- logbook. A custody seal (e.g., evidence tape) will be affixed to each sample container and/or the sample
- 19 collection package in such a way as to indicate potential tampering.
- 20 Each sample container will be labeled with the following information on firmly affixed, water resistant
- 21 labels:
- Sampling Authorization Form and form number
- HEIS number
- Sample collection date and time
- Sampler identification
- Analysis required
- Preservation method (if applicable)
- 28 In addition to the information above, sample records must include the following:
- Analysis required
- 30 Sample location
- Matrix (concrete, asphalt, water, etc.)
- 32 Sample custody will be maintained in accordance with existing Hanford Site protocols to ensure the
- maintenance of sample integrity throughout the analytical process. Chain-of-custody protocols will be
- 34 followed throughout sample collection, transfer, analysis, and disposal to ensure sample integrity is
- 35 maintained.
- 36 All waste (including unexpected waste) generated by sampling activities will be containerized, labeled,
- 37 characterized, designated as a dangerous or nondangerous waste, stored, and transported offsite where it
- will be treated (if necessary) to meet LDRs in 40 CFR 268 incorporated into WAC 173-303-140(2)(a) by
- reference, then ultimately disposed of in an approved waste disposal facility.

1 E3.10.7 Analytical Methods

- All analyses and testing will be performed consistent with laboratory agreements, laboratory analytical
- procedures, and *HASQARD* (DOE/RL-96-68). The approved laboratory must achieve the lowest practical
- 4 quantitation limits (PQLs) consistent with the selected analytical method to confirm clean closure levels.
- 5 If a target analyte is detected at or above the clean closure level but less than the PQL of the analytical
- 6 method, the Washington State Department of Ecology will be notified and alternatives will be discussed
- 7 to demonstrate clean closure levels.
- 8 Table E-7 outlines analytical methods and performance requirements associated with the target analytes.

9 E3.10.8 Quality Control

- Quality Control (QC) procedures must be followed in the field and laboratory to ensure that reliable data
- are obtained. Field QC samples will be collected to evaluate the potential for cross-contamination and
- provide information pertinent to field sampling variability. Field QC sampling will include the following:
- Full trip blank
- Field transfer blank
- Equipment rinsate blank
- Field duplicate
- Field split samples.
- 18 Laboratory QC samples estimate the precision and bias of the analytical data. Field and laboratory QC
- samples are summarized in Table E-6.
- A data quality assessment will be performed utilizing the guidance in EPA/240/B-06/084, Data Quality
- 21 Assessment: A Reviewer's Guide, and implementing the specific requirements in Sections E3.10.8
- 22 through E3.10.9.
- 23 Data verification, data validation, and data quality assessment will include both the primary samples and
- 24 quality control samples

Table E-5. Sample Preservation, Container, and Holding Time for Soil Samples

Method	Analysis/Analytes	Preservation Requirement	Holding Time	Bottle Type	Minimum Sample Size
EPA 6010	Metals	None	6 months	G/P	20 g
EPA 7196	Chromium (Hexavalent)	Cool ≤6°C	30 days	GP	20 g
EPA 7471	Mercury by Cold Vapor Atomic Absorption	≤6°C	28 days	G/P	15 g
EPA 8082	Polychlorinated biphenyl (PCB)	≤6°C	1 year	aG	250 g
EPA 8260	Volatile Organic Compounds	Cool ≤6°C ≤7°C and ≥20°C	48 hours 14 days	G	5 × 40 g
EPA 8270	Semivolatile Organic Compound	Cool ≤6°C	14/40 days	aG	250 g

Table E-5. Sample Preservation, Container, and Holding Time for Soil Samples

Method	Analysis/Analytes	Preservation Requirement	Holding Time	Bottle Type	Minimum Sample Size
EPA 300.0	Anions	Cool ≤6°C	48 hours/28 days	G/P	120 g
EPA 9012	Cyanide	≤6°C	14 days	G/P	120 g
EPA 9056A	Anions	≤6°C	48 hours/28 days	G/P	250 g
EPA 9010/9012/ 9013/9014	Cyanide	None	14 days	G/P	15 g
EPA 200.8	Metals by ICP-MS	None	6 months	G/P	10 g

Notes:

For EPA Method 300.0, see EPA-600/4-79-020, Methods for Chemical Analysis of Water and Wastes.

For the four-digit EPA methods, see SW-846, Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, Third Edition; Final Update IV-B.

48 hours/28 days = 48 hours for nitrate, nitrite, and phosphate; others, 28 days

 $\begin{array}{lll} aG & = & amber\ glass \\ G & = & glass \\ P & = & plastic \end{array}$

1

Table E-6. Project QC Sampling Summary

QC Sample Type	Frequency	Characteristics Evaluated
	Field QC	
Full trip blank (FTB)	One per 20 samples per media sampled.	Contamination from containers or transportation.
Equipment rinsate blank (EB)	As needed If only disposable equipment is used then an equipment blank is not required. Otherwise, one per 20 samples per media ^a	Adequacy of sampling equipment decontamination and contamination from non-dedicated equipment.
Field duplicate (DUP)	One per batch ^g , 20 samples maximum of each media sampled	Precision, including sampling and analytical variability.
Field Split Samples (SPLIT)	As needed. ^g When needed, the minimum is one per analytical method, per media sampled, for analyses performed where detection limit and precision and accuracy criteria have been defined in the Performance Requirements tables.	Precision, including sampling, analytical, and inter-laboratory.
	Laboratory (OC_p
Method Blanks	1 per batch ^g	Laboratory Contamination
Lab Duplicates	С	Laboratory Reproducibility and precision
Matrix Spikes	С	Matrix effect/laboratory accuracy
Matrix Spike Duplicates	С	Laboratory reproducibility, accuracy, and precision
Surrogates	С	Recovery/yield
Tracers	С	Recovery/yield
Laboratory Control Samples	1 per batch ^g	Evaluate Laboratory Accuracy
Performance Evaluation Programs ^d	Annual	Evaluate Laboratory Accuracy
Double-Blind Standards	Quarterly ^d	Evaluate Laboratory Accuracy
Audit/Assessment	Annually ^e or Every 3 years ^f	Evaluate overall laboratory performance and operations

Table E-6. Project QC Sampling Summary

QC Sample Type	Frequency	Characteristics Evaluated
----------------	-----------	---------------------------

- a. Whenever a new type of non-dedicated equipment is used, an equipment blank shall be collected every time sampling occurs until it can be shown that less frequent collection of equipment blanks is adequate to monitor the decontamination procedure for the non-dedicated equipment.
- b. As defined in the laboratory contract or QA plan and/or analysis procedures.
- c. Nationally recognized program, such as DOE Mixed Analyte Performance Evaluation Program or Environmental Resource Associates.
- d. Soil matrix double-blind standards are submitted by request of Analytical Services.
- e. DOE QSAS requires annual audit of commercial laboratories.
- f. HASQARD does not define a frequency for assessment of on-site laboratories. Three year evaluated supplier list requirement is typically applied.
- g. Batching across projects is allowing for similar matrices.
- h. Field split samples are used to compare inter-laboratory comparison of samples. Field split samples are not required when only one laboratory is used for sample matrix or analyte.

QA = Quality assurance. QC = Quality control.

VOC = Volatile organic compound.

E3.10.9 Data Verification

- 3 Analytical results will be received from the laboratory, loaded into a database (e.g., HEIS), and verified.
- 4 Verification activities include, but are not limited to, the following:
- Amount of data requested matches the amount of data received (number of samples for requested
 methods of analytes)
- 7 Procedures/methods are used.
- Documentation/deliverables are complete.
- Hard copy and electronic versions of the data are identical.
- 10 Data seem reasonable based on analytical methodologies

11

1 2

Table E-7. Concrete and Soil Analytical Performance Requirements

CAS Number	Analyte	Analytical Method	Closure Performance Standarda (mg/kg)		Practical Quantitation	Accuracy	Precision
CAS Number			Carcinogen	Non- carcinogen	Limit ^d (mg/kg)	Requirement (% Recovery) ^b	Requirement (RPD) ^b
7440-38-2	Arsenic	SW-846 Method 6010 or 200.8	0.667	24	10	±30	≤30
7440-39-3	Barium	SW-846 Method 6010	N/A	16,000	2.0	±30	≤30
7440-43-9	Cadmium	SW-846 Method 6010	N/A	80	0.5	±30	≤30
18540-29-9	Chromium (Hexavalent)	SW-846 Method 7196A	N/A	240	1.0	±30	≤30
7439-92-1	Lead	SW-846 Method 6010	N/A	250	5.0	±30	≤30
7439-97-6	Mercury	SW-846 Method 7471 or 200.8	N/A	2	0.2	±30	≤30
7782-49-2	Selenium	SW-846 Method 6010 or 200.8	N/A	400	10	±30	≤30
7440-22-4	Silver	SW-846 Method 6010	N/A	400	1.0	±30	≤30
71-43-2	Benzene	SW-846 Method 8260	18.2	320	0.005	N/A ^c	≤20
56-23-5	Carbon tetrachloride	SW-846 Method 8260	14.3	320	0.005	N/A ^c	≤20
67-66-3	Chloroform	SW-846 Method 8260	32.3	800	0.005	N/A ^c	≤20
121-14-2	2,4-Dinitrotoluene	SW-846 Method 8270	3.23	160	0.33	N/A ^c	≤20
127-18-4	Tetrachloroethylene	SW-846 Method 8260	476	480	0.005	N/A ^c	≤20
79-01-6	Trichloroethylene	SW-846 Method 8260	12.0	40	0.005	N/A ^c	N/A ^c
71-55-6	1,1,1-Trichloroethane	SW-846 Method 8260	N/A	165,000	0.005	N/A ^c	N/A ^c

Table E-7. Concrete and Soil Analytical Performance Requirements

CAS Number	Analyte	Analytical Method	Closure Performance Standard ^a (mg/kg)		Practical Quantitation	Accuracy	Precision
			Carcinogen	Non- carcinogen	Limit ^d (mg/kg)	Requirement (% Recovery) ^b	Requirement (RPD) ^b
76-13-1	Chlorinated fluorocarbons (1,1,2-Trichloro-1,2,2-trifluoroethane)	SW-846 Method 8260	N/A	2,400,000	0.01	N/A ^c	N/A ^c
75-09-2	Methylene chloride	SW-846 Method 8260	500	480	0.005	N/A ^c	N/A ^c
108-90-7	Chlorobenzene	SW-846 Method 8260	N/A	1,600	0.005	N/A ^c	N/A ^c
95-50-1	Ortho-dichlorobenzene	SW-846 Method 8270	N/A	7,200	0.33	N/A ^c	N/A ^c
79-00-5	1,1,2-Trichloroethane	SW-846 Method 8260	17.5	320	0.005	N/A ^c	N/A ^c
67-64-1	Acetone	SW-846 Method 8260	N/A	72,000	0.02	N/A ^c	≤20
71-36-3	N-butyl alcohol	SW-846 Method 8260	N/A	8,000	0.1	N/A ^c	N/A ^c
108-94-1	Cyclohexanone	SW-846 Method 8270	N/A	400,000	200	N/A ^c	N/A ^c
141-78-6	Ethyl acetate	SW-846 Method 8015	N/A	72,000	5.0	N/A ^c	N/A ^c
100-41-4	Ethyl benzene	SW-846 Method 8260	N/A	8,000	0.005	N/A ^c	N/A ^c
60-29-7	Ethyl ether	SW-846 Method 8260	N/A	16,000	0.005	N/A ^c	N/A ^c
67-56-1	Methanol	SW-846 Method 8260	N/A	160,000	1.0	N/A ^c	≤20
108-10-1	Methyl isobutyl ketone (MIBK)	SW-846 Method 8260	N/A	6,400	0.01	N/A ^c	N/A ^c
108-38-3	m-Xylene	SW-846 Method 8260`	N/A	16,000	0.005	N/A ^c	≤20
95-47-6	o-Xylene	SW-846 Method 8260	N/A	16,000	0.005	N/A ^c	≤20
106-42-3	p-Xylene	SW-846 Method 8260	N/A	16,000	0.005	N/A ^c	≤20
108-39-4	m-cresol	SW-846 Method 8270	N/A	4000	0.66	N/A ^c	≤20

Table E-7. Concrete and Soil Analytical Performance Requirements

CAS Number	Analyte	Analytical Method	Closure Performance Standard ^a (mg/kg)		Practical Quantitation	Accuracy	Precision Requirement
			Carcinogen	Non- carcinogen	Limit ^d (mg/kg)	Requirement (% Recovery) ^b	(RPD) ^b
95-48-7	o-cresol	SW-846 Method 8270	N/A	4000	0.33	N/A ^c	≤20
106-44-5	p-cresol	SW-846 Method 8270	N/A	8,000	0.33	N/A ^c	≤20
79-46-9	2-Nitropropane	SW-846 Method 8260	N/A	N/A	1	N/A ^c	N/A ^c
75-15-0	Carbon disulfide	SW-846 Method 8260	N/A	8,000	0.005	N/A ^c	N/A ^c
78-83-1	Isobutanol	SW-846 Method 8260	N/A	24,000	0.5	N/A ^c	N/A ^c
110-80-5	2-Ethoxyethanol	SW-846 Method 8270	N/A	7,200	200	N/A ^c	N/A ^c
108-88-3	Toluene	SW-846 Method 8260	N/A	6,400	0.005	N/A ^c	N/A ^c
78-93-3	Methyl Ethyl Ketone (MEK) (2- Butanone)	SW-846 Method 8260	N/A	48,000	0.01	N/A ^c	≤20
98-95-3	Benzene, nitro	SW-846 Method 8270	N/A	160	0.33	N/A ^c	N/A ^c
110-86-1	Pyridine	SW-846 Method 8260	N/A	80	0.005	N/A ^c	≤20
1336-36-3	Polychlorinated biphenyl (PCB)	SW-846 Method 8082	0.5	N/A	0.16	N/A°	≤20

a. Closure Performance Standards are the numeric cleanup levels calculated using unrestricted use exposure assumptions according to the Model Toxics Control Act (MTCA) Cleanup Regulation (WAC 173-340-740, -747, -and -7490 through -7494). These numeric clean-up levels will be calculated according to MTCA Method B (unrestricted use standards).

d. For these analytical performance requirements, the Required Detection Limit and the Practical Quantification Limit are identical.

N/A = not applicable

na = information not available

b. Accuracy criteria for associated batch matrix spike percent recoveries. Evaluation based on statistical control of laboratory control samples is also performed. Precision criteria for batch laboratory replicate matrix spike analyses or replicate sample analyses.

c. Determined by the laboratory based on historical data or statistically derived control limits. Limits are reported with the data. Where specific acceptance criteria are listed, those acceptance criteria may be used in place of statistically derived acceptance criteria.

WA7890008967, PART V, CLOSURE UNIT GROUP 7 T-PLANT COMPLEX

1 E3.10.10 Data Validation and Usability

- 2 Data validation is performed by a third party. The laboratory supplies contract laboratory program
- 3 equivalent analytical data packages intended to support data validation by the third party. The laboratory
- 4 submits data packages that are supported by QC test results and raw data.
- 5 Controls are in place to preserve the data sent to the validators and allow only additions to be made, not
- 6 changes to the raw data.
- 7 The format and requirements for data validation activities are based upon the most current version of
- 8 USEPA-540-R-08-01, National Functional Guidelines for Superfund Organic Methods Data Review
- 9 (OSWER 9240.1-48), and USEPA-540-R-10-011, National Functional Guidelines for Inorganic
- 10 Superfund Data Review (OSWER 9240.1-51). As defined by the validation guidelines, 5 percent of the
- 11 results will undergo Level C validation.

12

13 E3.10.11 Sampling and Analysis Requirements to Address Removal of Contaminated Gravel/soil

15 In the event that sample results based on the MTCA Method B (WAC 173-340) three part test (Section

- 16 E3.10.5) indicate contamination above clean closure levels, the contaminated concrete/asphalt will be
- 17 removed in accordance with Section E3.7. Following removal of contaminated concrete/asphalt,
- 18 additional samples will be taken at the same grid location as identified in Attachment B. Additional
- 19 focused sampling may be added in areas where contamination is identified. Additional focused samples
- will be documented, as required in Section E3.10.10, and provided with the closure certification upon
- 21 request by Ecology. These samples will be analyzed in accordance with the methods specified in
- Table E-5, with accompanying QC samples as discussed in Section E3.10.8

23 E3.10.12 Verification of VSP Input Parameters

- Analytical data will be entered back into the VSP software. If all analytical data for a particular analyte
- are nondetect, verification of VSP input parameters is not required for that analyte. The VSP software
- 26 uses the analytical data to determine if the user input parameters were estimated appropriately.
- 27 Once analytical data are entered into the VSP software, VSP will calculate the true standard deviation and
- 28 if the null hypothesis can be rejected. If the calculated standard deviation is smaller than the estimated
- 29 user input standard deviation, no additional sampling will be required. If the calculated standard deviation
- 30 is larger than the estimated standard deviation, additional sampling may be required. Comparison of the
- 31 maximum data value for each analyte to the clean closure standards will ensure that all individual analytes
- 32 are below the action levels. Verification of the null hypothesis through VSP will determine if the mean
- value of the site analytical data supports rejection of the null hypothesis (Section E2.1)

34 E3.10.13 Documents and Records

- 35 The Project Manager is responsible for ensuring the current version of the SAP is being used and for
- providing any updates to field personnel. Version control is maintained by the administrative document
- 37 control process. Changes to the SAP affecting the data needs will be submitted as a permit modification in
- accordance with WAC 173-303-610 to DOE and the lead regulatory agency.
- 39 Logbooks are required for field activities. A logbook must be identified with a unique project name and
- 40 number. The individual(s) responsible for logbooks will be identified in the front of the logbook and only
- 41 authorized persons may make entries in logbooks. Logbooks will be signed by the FWS, cognizant
- 42 scientist/engineer, or other responsible individual. Logbooks will be permanently bound, waterproof, and
- 43 ruled with sequentially numbered pages. Pages will not be removed from logbooks for any reason. Entries

PERMIT MODIFICATION REQUEST JULY 27, 2015

WA7890008967, PART V, CLOSURE UNIT GROUP 7 T-PLANT COMPLEX

- will be made in indelible ink. Corrections will be made by marking through the erroneous data with a
- 2 single line, entering the correct data, and initialing and dating the changes.
- 3 The Project Manager is responsible for ensuring that a project file is properly maintained. The project file
- 4 will contain the records or references to their storage locations. The following will be included in the
- 5 project file, as appropriate:
- Field logbooks or operational records
- 7 Data forms
- 8 Global positioning system data
- 9 Chain-of-custody forms
- Sample receipt records
- Inspection or assessment reports and corrective action reports
- Interim progress reports
- Final reports
- Laboratory data packages
- Verification and validation reports
- 16 The laboratory is responsible for maintaining, and having available upon request, the following:
- Analytical logbooks
- Raw data and QC sample records
- Standard reference material and/or proficiency test sample data
- 20 Instrument calibration information
- 21 Records may be stored in either electronic or hardcopy format. Documentation and records, regardless
- 22 of medium or format, are controlled in accordance with internal work requirements and processes to
- 23 ensure the accuracy and retrievability of stored records. Records required by the Tri-Party Agreement
- 24 (Ecology et al., 1989a) will be managed in accordance with the requirements therein.
- 25 E3.10.14 Revisions to the Sampling and Analysis Plan and Constituents to be Analyzed
- 26 If changes to the SAP are necessary due to unexpected events during closure that will affect sampling, a
- 27 revision to the SAP will be submitted no later than 30 days after the unexpected event as a permit
- 28 modification as required in WAC 173-303-610(3)(b)(iii) and WAC 173-303-830, "Permit Changes."

29 E3.11 Role of the Independent Qualified Registered Professional Engineer

- 30 An independent, qualified, registered professional engineer (IQRPE) will be retained to provide
- 31 certification of the closure, and sign the closure certification as required by WAC 173-303-610(6). The
- 32 IQRPE will be responsible for observing field activities and reviewing documents associated with closure
- of FS-1. At a minimum, the following field activities would be completed:
- Review 277-T Outdoor Storage Area visual inspection.
- Review sampling procedures and results.
- Observe and/or review sampling activities.
- Observe and/or review contaminated environmental debris removal (as applicable).
- Verify that locations of samples are as specified in the SAP.

- 1 The IQRPE will record his or her observations and reviews in a written report that will be retained in the
- 2 operating record. The resulting report will be used to develop the clean closure certification, which will
- 3 then be provided to Ecology

4 E3.12 Closure Certification

- 5 In accordance with WAC 173-303-610(6), within 60 days of completion of closure of the 277-T Outdoor
- 6 Storage Area DWMU, a certification that the DWMU has been closed in accordance with the
- 7 specifications in this closure plan will be submitted to Ecology by registered mail. The certification will
- 8 be signed by the owner or operator and by an IQRPE.
- 9 Upon request by Ecology, the following information will be submitted to support the closure certification:
- All field notes and photographs related to closure activities
- A description of any minor deviations from the approved closure plan and justification for these deviations
- Documentation of the removal and final disposition of any unanticipated contaminated environmental media
- All laboratory and/or field data, including sampling procedures, sampling locations, QA/QC samples,
 and chain-of-custody procedures for all samples and measurements, including samples and
 measurements taken to determine background conditions and/or determine or confirm clean closure
- A summary report that identifies and describes the data reviewed by the IQRPE and tabulates the analytical results of samples taken to determine and confirm clean closure
- A description of the DWMU area appearance at completion of closure, including what parts of the former unit, if any, will remain after closure

E3.13 Conditions that will be Achieved when Closure is Complete

- 23 Upon confirmation of clean closure levels, the 277-T Outdoor Storage Area will remain in an "as-is" state
- 24 with the concrete and asphalt pads remaining in place. A permit modification request will be submitted
- 25 after clean closure has been confirmed to remove the 277-T Outdoor Storage Area DWMU from the
- sitewide permit active DWMUs.

27

E4 Closure Schedule and Time Frame

- Confirmation sampling and analysis activities will be completed within 180-days of approval of the
- 29 closure plan. Should unexpected circumstances arise and an extension to the 180-day closure activity
- 30 expiration date be deemed necessary, a Class '1 permit modification request will be submitted to Ecology
- for approval at least 30-days prior to the 180-day expiration date in accordance with WAC 173-303-
- 32 610(4)(c) and WAC 173-303-830, Appendix I. The extension request would also demonstrate that all
- 33 steps to prevent threats to human health and the environment, including compliance with all applicable
- permit requirements and criteria in WAC 173-303-610(4)(b)(i) or (ii), have been and will be taken.
- 35 Closure certification will be submitted to Ecology within 60 days following completion of closure
- activities at the 277-T Outdoor Storage Area as outlined in Section E4 (Table E-8 and Figure E-4).

E5 Closure Costs

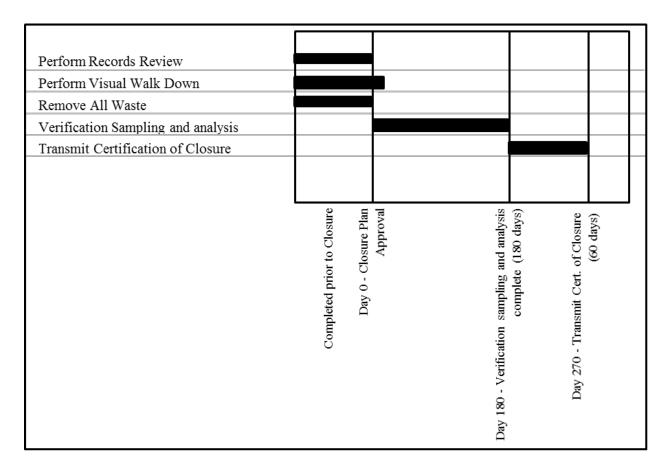
- 2 An annual report outlining updated projections of anticipated closure costs for the Hanford Facility TSD
- 3 units having final status is not required per Permit Condition II.H.

Table E-8. 277-T Outdoor Storage Area Closure Activity Description

Primary Activity	Secondary Activity	Expected Duration				
Sampling of concrete/asphalt for clean-closure levels	Not applicable	180 days				
CLOSURE ACTIVITIES COMPLETE						
Transmit closure certification to Washington State Department of Ecology	Not applicable	60 days				

4

1



56

Figure E-4. 277-T Outdoor Storage Area Closure Schedule Activities

7

Attachment A. T-Plant 277-T Outdoor Storage Area RCRA Records Review and Visual Inspection Supporting Documentation

This page intentionally left blank.

T Plant Complex 277-T Building Storage Area

Purpose:

A visual inspection of the T Plant Complex 277-T Outdoor Storage Area was performed to identify low points, seams, cracks, crevices, and drains for the purpose of focused sampling during closure. If a random sample determined through the use of the Visual Sampling Plan software was already identified in the vicinity of a low point, crack, crevice, sump or drain, additional focused samples were not deemed necessary.

The inspection was performed on June 01, 2015.

Results:

As a result of the inspection, three focused sample locations were identified. Identified were two seam samples and one condensate blow-down line drain sample. These sample locations along with the current VSP random samples are identified in the below figure which will be included in the 277-T Outdoor Storage Area closure plan.

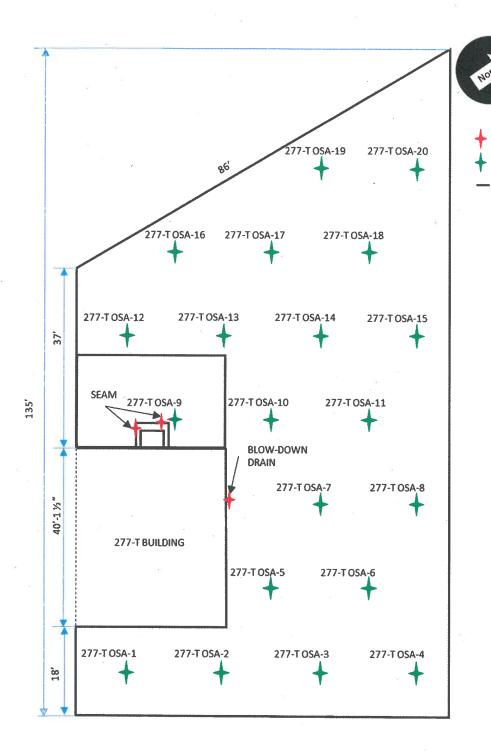
Signature/Date:

Sarah Horn

7/28/2015

FOCUSED SAMPLING

VSP GRID SAMPLING Existing feature.



T Plant Complex 277-T Outdoor Container Storage Area

Purpose:

A visual inspection walkdown of the T Plant Complex 277-T Outdoor Container Storage Area was performed to determine if there is any evidence of spills and/or leaks from waste packages containing dangerous waste that was stored at this location from ongoing and past operations. The inspection was to identify and document by photographing any waste related staining of the storage area surface (i.e., asphalt and concrete), and to denote any remaining waste related items.

The inspection was performed on August 29, 2013 by Brett M. Barnes (CHPRC) Environmental Compliance Officer.

Results:

Stains from rusting equipment was observed on the concrete pad and the asphalt pad (see attached photographs). Area was thoroughly photographed.

Brett M. Barnes 9/3/13

Some items were observed in the 277-T Outdoor Container Storage Area:

- Metal posts
- Wire roping and radiological postings
- White road paint for striping
- ERDF roll-off/roll-on box (actively used for accumulation of low-level waste)
- Pieces of tumbleweeds
- Loose gravel

Housekeeping will be performed on the area prior to closure.

Signature/Date:

Brett M. Barnes:

Strickling, Lana R

From:

Barnes, Brett M

Tuesday, September 03, 2013 1:34 PM Sent: To:

Horn, Sarah R; Strickling, Lana R

Engelmann, Richard H; Dixon, Brian J; Ruck, Fred A III; Seaver, Jennie R Cc: Subject:

REVISED T PLANT COMPLEX 277-T OUTDOOR CONTAINER STORAGE AREA

CLOSURE INSPECTION REPORT

Attachments: SPDQ0638013090313013.pdf

All, please ignore my previous closure inspection reports... I had to correct some editorial comments.

Attached is the closure inspection report for the T Plant Complex 277-T Outdoor Container Storage Area. The photographs that are attached to this report are directly below, in descending order. Should you have any questions, please call me on my cell phone, 521-3053.

Brett M. Barnes Environmental Compliance Officer





T-Plant Daily Operating Log Book Review

Waste Management Units:	271-T Cage, 211-T Pad, 222-T Sand Filter Pad, 221-T R-5, 277-T Outdoor Storage Area
Date of Log Book Review:	8/15/13 - 8/26/13
Reviewer's Names:	Joel Williams, Brett Barnes, Brian Dixon, Jeff Bramson, Joe Archuleta, Patrick Baynes, Don Craig, Lana Strickling
Daily Operating Log Book Document No:	See attached.
Log Book Timeframe (Month/Year to Month/Year):	1/2/85 - 6/22/10
Items of Concern Noted If "YES", complete entire checklist. If "NO", skip to Reviewer's signature and date.	YES NOX
Items of Concern: Attach copies of log book pages noting concern.	
Log Book Page# Referencing Spill:	
Dates of Corrective Actions: Attach copies of log book pages noting corrective actions.	
Log Book Page# Referencing Corrective Action:	
Reviewer's Signature and Date:	Jana Strictling 9/16/13

Instructions:

Review Daily Operating Log for any references to unplanned spills, releases or discharges associated with dangerous waste containers. Anomalies that would not affect closure of the unit such as missing labels, open containers, or dented containers, do not need to be documented.

If items of concern are noted, check "YES" and complete the entire checklist. If no items of concern are noted, check "NO" and skip to the signature and date field. Note that if no items of concern are noted for the entire year, the "Log Book Time Frame" can be January 1, 20xx to December 31, 20xx.

If unplanned spills, releases or discharges are referenced in the Daily Operating Log, document the item of concern as "spill", "stain", "ruptured container", etc. Also note the date of the corrective action.

Attach copies of the Daily Operating Log page(s) noting the items of concern and corrective actions.

Complete all review fields as applicable. Sign and date form and deliver to Stephanie Johansen.

Book Number	Start Date	End Date	Box Number
	01/02/87	12/31/85	135357
	01/02/86	12/31/86	135357
	01/02/87	12/31/87	135357
	01/04/88	12/30/88	135357
Operations Log	01/03/89	12/29/89	149634
Operations Log	01/02/90	01/02/91	149634
Operations Log	01/02/91	01/16/91	149634
	01/16/91	06/04/91	141785
	06/06/91	10/23/91	141785
,	10/24/91	03/12/92	141785
	03/13/92	07/13/92	141785
	07/14/92	10/16/92	141785
	10/17/92	01/21/93	141785
	01/21/93	02/05/93	141785
	01/23/93	03/14/93	141785
	03/15/93	04/20/93	141785
	04/21/93	05/21/93	141785
	05/27/93	07/01/93	141785
	07/06/93	08/12/93	141785
	08/12/93	09/17/93	141785
	09/17/93	10/22/93	141785
	10/22/93	11/24/93	141785
	11/29/93	01/07/94	141785
	01/07/94	02/09/94	141785
	02/10/94	03/11/94	141785
	03/14/94	04/11/94	141785
	04/12/94	05/10/94	141785
	05/10/94	06/10/94	141785
	06/13/94	07/21/94	141785
	07/13/94	08/12/94	141785
	08/12/94	09/14/94	141785
	09/14/94	10/10/94	141785
BOX 3	10/03/94	12/12/94	131414
	10/10/94	11/09/94	141785
	11/09/94	12/07/94	141785
	12/07/94	01/05/95	141785
BOX 3	12/13/94	02/24/95	131414
	01/05/95	02/02/95	141785
	02/02/95	02/28/95	141785
	02/28/95	03/30/95	141785
	03/30/95	04/26/95	141785
	04/26/95	05/31/95	141785
	05/31/95	06/29/95	131414
	07/14/95	09/19/95	131414
	07/30/95	08/22/95	131414
	08/22/95	09/12/95	131414

Book Number		Start Date	End Date	Box Number
		09/13/95	10/04/95	131414
		09/20/95	11/10/95	131414
		10/04/95	10/24/95	131414
		10/24/95	11/09/95	131414
		11/10/95	01/08/96	131414
		11/10/95	11/30/95	131414
		11/30/95	12/15/95	131414
		12/15/95	01/08/96	131414
		01/09/96	02/23/96	131414
		01/18/96	01/24/96	131414
		01/24/96	02/21/96	131414
		02/21/96	03/18/96	131414
		02/23/96	04/08/96	131414
		03/18/96	04/09/96	131414
		04/09/96	05/23/96	131414
		04/09/96	05/02/96	131414
		05/02/96	05/31/96	131414
		05/24/96	07/30/96	131414
		05/31/96	06/28/96	131414
		06/28/96	07/29/96	131414
		06/30/95	07/31/95	131414
		07/30/96	08/22/96	131414
		07/31/96	09/17/96	131414
		08/22/96	09/17/96	131414
		09/19/96	11/14/96	131414
		09/17/96	10/14/96	131414
		10/14/96	11/05/96	131414
		11/05/96	12/02/96	131414
		11/15/96	01/09/97	131414
		12/02/96	12/30/96	131414
		12/30/96	01/24/97	131414
BOX 1		01/24/97	02/20/97	149634
BOX 1		02/20/97	03/20/97	149634
BOX 1		03/21/97	04/21/97	149634
BOX 1		04/21/97	06/02/97	149634
BOX 1		05/13/97	07/03/97	149634
BOX 1		06/02/97	07/10/97	149634
BOX 1		07/10/97	08/22/97	149634
	3030	08/22/97	10/07/97	177623
	2005	10/08/97	11/17/97	177623
	3033	11/18/97	12/29/97	177623
	3034	12/30/97	02/04/98	177623
	3035	02/05/98	03/11/98	177623
	3036	03/12/98	04/20/98	177623
	3037	04/21/98	06/03/98	177623
	3038	06/04/98	07/15/98	177623

Book Number	Start D	ate End Date	Box Number
30	07/16	/98 09/02/98	177623
30	09/03	/98 10/22/98	177623
30	10/23	/98 12/04/98	177623
20	003 12/07	7/98 01/18/99	177623
20	01/19	/99 03/15/99	177623
50	000 03/16	6/99 05/18/99	177623
50	05/19	/99 07/27/99	177623
50	07/28	3/99 09/15/99	177623
50	09/15	i/99 10/28/99	177623
50	005 10/28	3/99 12/30/99	177623
30	002 12/16	5/99 02/17/00	177623
50	006 12/31	./99 03/06/00	177623
50	03/07	<mark>/</mark> /00 05/01/00	177623
30	04/19)/00 06/08/00	177623
	05/02	2/00 07/11/00	177623
50	07/12	2/00 09/12/00	177623
50	010 09/13	/00 11/17/00	177623
50	011 11/20	01/18/01	177623
50	01/18	3/01 03/15/01	223426
	03/15		·
50	05/08	3/01 07/03/01	223426
	07/03	3/01 08/21/01	223426
	016 08/22		
	017 10/04		
	018 11/12		
	01/02		·
	02/21		
	021 04/01		·
	05/17		
	023 07/02		
	010 08/11		······································
	09/25	· · · · · · · · · · · · · · · · · · ·	
	012 11/11	~~~~~~~ ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
WARRANTON	01/10		
	02/27		
	04/09	······································	
	06/09		
**************************************	08/06		
	018 09/24		
	019 11/05		
	01/20		
	022 03/14		
	05/19		
CAMPAGALITIC TAX CONTROL CONTR	024 08/03		
	025 10/16	**************************************	
30	047 12/08	3/04 02/03/05	223426

T Plant Facility Logbooks

Book Number	Start Date	End Date	Box Number
3048	02/04/05	04/13/05	223426
3049	04/14/05	06/27/05	223426
3050	06/28/05	09/02/05	223426
5001	09/06/05	11/16/05	223426
3051	11/17/05	02/07/06	223426
3052	02/08/06	04/13/06	223426
3053	04/14/06	06/28/06	223425
3054	06/29/06	09/14/06	223425
3055	09/15/06	11/29/06	223425
3056	11/30/06	02/12/07	223425
3057	02/13/07	04/16/07	223425
3058	04/17/07	06/07/07	223425
3059	06/08/07	07/31/07	223425
3060	08/01/07	09/26/07	223425
3061	09/26/07	11/10/07	223425
3062	11/12/07	12/26/07	223425
3063	12/27/07	02/13/08	223425
3064	02/14/08	03/24/08	223425
3065	03/24/08	05/05/08	223425
3066	05/05/08	06/05/08	223425
3067	06/05/08	07/11/08	223425
3068	07/11/08	08/12/08	223425
3069	08/12/08	09/22/08	223425
3070	09/22/08	11/03/08	223425
3071	11/04/08	12/30/08	223425
3072	12/31/08	02/23/09	223425
3073	02/24/09	04/10/09	223425
3074	04/10/09	05/28/09	223425
3075	05/28/09	07/20/09	223425
3076	07/21/09	09/02/09	223425
3077			
3078	11/04/09	12/21/09	223425
3079	12/22/09	02/01/10	223425
3080			
3081			
3082			
3083	· · · · · · · · · · · · · · · · · · ·		
3084			

T-Plant Operation Logbook Review

Title(s) of Logbook:	T-Plant Operati	on Logbook
Date of Review:	08/15/13 throu	gh 08/19/13
Reviewer's Name:	Stephanie Joha	nsen
Waste Management Units:	271-T Cage, 21: 277-T Outdoor	1-T Pad, 221-T Sand Filter Pad, 221-T R-5, Storage Area
Logbook Date Range:	07/27/10 throu	igh 04/07/11
Logbook Numbers:	3085 through 3	091
Items of Concern Noted If "YES", complete entire checklist. If "NO", skip to Reviewer's signature and date.	YES	NO 🗵
Items of Concerns:		
Attach copies of pages noting concern.		
Dates of Corrective Actions:		
Attach copies of pages noting concern.		
Reviewer's Signature and Date:	Depla	ne Wyslen

Instructions:

Review logbooks for any references to unplanned spills, releases or discharges associated with dangerous waste containers. Anomalies that would not affect closure of the unit such as missing labels, open containers, or dented containers, do not need to be documented.

If items of concern are noted, check "YES" and complete the entire checklist. If no items of concern are noted, check "NO" and skip to the signature and date field.

If unplanned spills, releases or discharges are referenced on the inspection checklist, document the item of concern as "spill", "stain", "ruptured container", etc. Also note the date of the corrective action.

Attach copies of pages noting the items of concern and corrective actions.

Complete all review fields as applicable.

Title of Daily Waste Inspection Form: Waste Management Area Daily Inspection Data Sheet

Date of Review: 9/3/2013

Reviewer's Name: Linda Carr

Waste Management Units: 221-T, 2706, MO433, 214-T, 211-T, 221-T, 277-T,

Boneyard Pad Waste Storage

Time Frame of Daily Inspections: 2005- August 29 – December 1

Items of Concern Noted (Circle) YES□ NO⊠

If "YES", complete entire checklist.

If "NO", skip to Reviewer's signature and date.

Items of Concerns:

Attach copies of Daily Inspection sheets noting concern.

Dates of Corrective Actions:

Attach copies of Daily Inspection sheets noting concern.

Reviewer's Signature and Date:

Instructions:

Review Daily Waste Inspection checklists for any references to unplanned spills, releases or discharges associated with dangerous waste containers. Anomalies that would not affect closure of the unit such as missing labels, open containers, or dented containers, do not need to be documented.

If items of concern are noted, check "YES" and complete the entire checklist. If no items of concern are noted, check "NO" and skip to the signature and date field. Note that if no items of concern are noted for an extended period of time, the "Time Frame of Daily Inspections" can be January 1, 20xx to December 31, 20xx or even several years if no items of concern are noted.

If unplanned spills, releases or discharges are referenced on the inspection checklist, document the item of concern as "spill", "stain", "ruptured container", etc. Also note the date of the corrective action.

Attach copies of daily waste inspection checklists noting the items of concern and corrective actions. Complete all review fields as applicable.

Title of Daily Waste Inspection Form:	T Plant Daily W Sheets	aste Management Area Inspection Data
Date of Review:	7/31/2013	
Reviewer's Name:	Linda Carr	
Waste Management Units:	221-T SF, 211-	T, 271-T, 277-T Bld., 221-T R5
Time Frame of Daily Inspections:	2007-October	1-December 31
Items of Concern Noted (Circle) If "YES", complete entire checklist. If "NO", skip to Reviewer's signature and date.	YES	NO 🗵
Items of Concerns: Attach copies of Daily Inspection sheets noting con	cern.	
Dates of Corrective Actions: Attach copies of Daily Inspection sheets noting con	cern.	
Reviewer's Signature and Date:	Lind	w Con- 9/4/13

Instructions:

Review Daily Waste Inspection checklists for any references to unplanned spills, releases or discharges associated with dangerous waste containers. Anomalies that would not affect closure of the unit such as missing labels, open containers, or dented containers, do not need to be documented.

If items of concern are noted, check "YES" and complete the entire checklist. If no items of concern are noted, check "NO" and skip to the signature and date field. Note that if no items of concern are noted for an extended period of time, the "Time Frame of Daily Inspections" can be January 1, 20xx to December 31, 20xx or even several years if no items of concern are noted.

If unplanned spills, releases or discharges are referenced on the inspection checklist, document the item of concern as "spill", "stain", "ruptured container", etc. Also note the date of the corrective action.

Attach copies of daily waste inspection checklists noting the items of concern and corrective actions.

Complete all review fields as applicable.

Title of Daily Waste Inspection Form:

T-Plant Daily Waste Management Area Inspection Data

Sheets

Date of Review:

7/31/2013

Reviewer's Name:

Linda Carr

Waste Management Units:

221-T SF, 211-T, 271-T, 277-T Bld., 221-T R5

Time Frame of Daily Inspections:

2008-January 1-September 31

Items of Concern Noted (Circle)

YES 🗌

NO区

If "YES", complete entire checklist.

If "NO", skip to Reviewer's signature and date.

Items of Concerns:

Attach copies of Daily Inspection sheets noting concern.

Dates of Corrective Actions:

Attach copies of Daily Inspection sheets noting concern.

Reviewer's Signature and Date:

Instructions:

Review Daily Waste Inspection checklists for any references to unplanned spills, releases or discharges associated with dangerous waste containers. Anomalies that would not affect closure of the unit such as missing labels, open containers, or dented containers, do not need to be documented.

If items of concern are noted, check "YES" and complete the entire checklist. If no items of concern are noted, check "NO" and skip to the signature and date field. Note that if no items of concern are noted for an extended period of time, the "Time Frame of Daily Inspections" can be January 1, 20xx to December 31, 20xx or even several years if no items of concern are noted.

If unplanned spills, releases or discharges are referenced on the inspection checklist, document the item of concern as "spill", "stain", "ruptured container", etc. Also note the date of the corrective action. Attach copies of daily waste inspection checklists noting the items of concern and corrective actions.

Complete all review fields as applicable.

Title of Daily Waste Inspection Form:

T-Plant Daily Waste Management Area Inspection Data

Sheets

Date of Review:

7/31/2013

Reviewer's Name:

Linda Carr

Waste Management Units:

221-T SF, 211-T, 271-T, 277-T Bld., 221-T R5

Time Frame of Daily Inspections:

2008-October 1-December 31

Items of Concern Noted (Circle)

YES□

NO⊠

If "YES", complete entire checklist.

If "NO", skip to Reviewer's signature and date.

Items of Concerns:

Attach copies of Daily Inspection sheets noting concern.

Dates of Corrective Actions:

Attach copies of Daily Inspection sheets noting concern.

Reviewer's Signature and Date:

Instructions:

Review Daily Waste Inspection checklists for any references to unplanned spills, releases or discharges associated with dangerous waste containers. Anomalies that would not affect closure of the unit such as missing labels, open containers, or dented containers, do not need to be documented.

If items of concern are noted, check "YES" and complete the entire checklist. If no items of concern are noted, check "NO" and skip to the signature and date field. Note that if no items of concern are noted for an extended period of time, the "Time Frame of Daily Inspections" can be January 1, 20xx to December 31, 20xx or even several years if no items of concern are noted.

If unplanned spills, releases or discharges are referenced on the inspection checklist, document the item of concern as "spill", "stain", "ruptured container", etc. Also note the date of the corrective action. Attach copies of daily waste inspection checklists noting the items of concern and corrective actions.

Complete all review fields as applicable.

Title of Daily Waste Inspection Form: T-Plant Daily Waste Management Area Inspection Data

Sheets

Date of Review: 7/31/2013

Reviewer's Name: Linda Carr

Waste Management Units: 221-T SF, 211-T, 271-T, 277-T Bld., 221-T R5

Time Frame of Daily Inspections: 2009-January 1-December 31

Items of Concern Noted (Circle) YES□ NO⊠

If "YES", complete entire checklist.

If "NO", skip to Reviewer's signature and date.

Items of Concerns:

Attach copies of Daily Inspection sheets noting concern.

Dates of Corrective Actions:
Attach copies of Daily Inspection sheets noting concern.

Reviewer's Signature and Date:

Instructions:

Review Daily Waste Inspection checklists for any references to unplanned spills, releases or discharges associated with dangerous waste containers. Anomalies that would not affect closure of the unit such as missing labels, open containers, or dented containers, do not need to be documented.

If items of concern are noted, check "YES" and complete the entire checklist. If no items of concern are noted, check "NO" and skip to the signature and date field. Note that if no items of concern are noted for an extended period of time, the "Time Frame of Daily Inspections" can be January 1, 20xx to December 31, 20xx or even several years if no items of concern are noted.

If unplanned spills, releases or discharges are referenced on the inspection checklist, document the item of concern as "spill", "stain", "ruptured container", etc. Also note the date of the corrective action. Attach copies of daily waste inspection checklists noting the items of concern and corrective actions.

Complete all review fields as applicable.

Title of Daily Waste Inspection Form:	T-Plant Daily Waste Management Area Inspection Data Sheets
Date of Review:	7/31/2013
Reviewer's Name:	Linda Carr
Waste Management Units:	221-T SF, 211-T, 271-T, 277-T Bld., 221-T R5
Time Frame of Daily Inspections:	2010-January 1-December 31
Items of Concern Noted (Circle) If "YES", complete entire checklist. If "NO", skip to Reviewer's signature and date.	YES□ NO⊠
Items of Concerns: Attach copies of Daily Inspection sheets noting con	cern.
Dates of Corrective Actions: Attach copies of Daily Inspection sheets noting con	cern.
Paviouse's Signature and Data:	Inh (an 9/4/13

Instructions:

Reviewer's Signature and Date:

Review Daily Waste Inspection checklists for any references to unplanned spills, releases or discharges associated with dangerous waste containers. Anomalies that would not affect closure of the unit such as missing labels, open containers, or dented containers, do not need to be documented.

If items of concern are noted, check "YES" and complete the entire checklist. If no items of concern are noted, check "NO" and skip to the signature and date field. Note that if no items of concern are noted for an extended period of time, the "Time Frame of Daily Inspections" can be January 1, 20xx to December 31, 20xx or even several years if no items of concern are noted.

If unplanned spills, releases or discharges are referenced on the inspection checklist, document the item of concern as "spill", "stain", "ruptured container", etc. Also note the date of the corrective action. Attach copies of daily waste inspection checklists noting the items of concern and corrective actions.

Complete all review fields as applicable.

Title of Daily Waste Inspection Form: T-Plant Daily Waste Management Area Inspection Data Sheets Date of Review: 7/31/2013 Reviewer's Name: Linda Carr 221-T SF, 211-T, 271-T, 277-T Bld., 221-T R5 Waste Management Units: Time Frame of Daily Inspections: 2011-January 1-December 31 NOX Items of Concern Noted (Circle) YES□ If "YES", complete entire checklist. If "NO", skip to Reviewer's signature and date. Items of Concerns: Attach copies of Daily Inspection sheets noting concern. Dates of Corrective Actions: Attach copies of Daily Inspection sheets noting concern. Lula Ca 9/4/12 Reviewer's Signature and Date:

Instructions:

Review Daily Waste Inspection checklists for any references to unplanned spills, releases or discharges associated with dangerous waste containers. Anomalies that would not affect closure of the unit such as missing labels, open containers, or dented containers, do not need to be documented.

If items of concern are noted, check "YES" and complete the entire checklist. If no items of concern are noted, check "NO" and skip to the signature and date field. Note that if no items of concern are noted for an extended period of time, the "Time Frame of Daily Inspections" can be January 1, 20xx to December 31, 20xx or even several years if no items of concern are noted.

If unplanned spills, releases or discharges are referenced on the inspection checklist, document the item of concern as "spill", "stain", "ruptured container", etc. Also note the date of the corrective action.

Attach copies of daily waste inspection checklists noting the items of concern and corrective actions.

Complete all review fields as applicable.

Title of Daily Waste Inspection Form:

T-Plant Daily Waste Management Area Inspection Data

Sheets

Date of Review:

7/31/2013

Reviewer's Name:

Linda Carr

Waste Management Units:

221-T SF, 211-T, 271-T, 277-T Bld., 221-T R5

Time Frame of Daily Inspections:

2012-January 1-December 31

Items of Concern Noted (Circle)

YES□

NO⊠

If "YES", complete entire checklist.

If "NO", skip to Reviewer's signature and date.

Items of Concerns:

Attach copies of Daily Inspection sheets noting concern.

Dates of Corrective Actions:

Attach copies of Daily Inspection sheets noting concern.

Reviewer's Signature and Date:

Lila a 9/4

Instructions:

Review Daily Waste Inspection checklists for any references to unplanned spills, releases or discharges associated with dangerous waste containers. Anomalies that would not affect closure of the unit such as missing labels, open containers, or dented containers, do not need to be documented.

If items of concern are noted, check "YES" and complete the entire checklist. If no items of concern are noted, check "NO" and skip to the signature and date field. Note that if no items of concern are noted for an extended period of time, the "Time Frame of Daily Inspections" can be January 1, 20xx to December 31, 20xx or even several years if no items of concern are noted.

If unplanned spills, releases or discharges are referenced on the inspection checklist, document the item of concern as "spill", "stain", "ruptured container", etc. Also note the date of the corrective action. Attach copies of daily waste inspection checklists noting the items of concern and corrective actions.

Complete all review fields as applicable.

Title of Daily Waste Inspection Form:

T-Plant Daily Waste Management Area Inspection Data

Sheets

Date of Review:

7/31/2013

Reviewer's Name:

Linda Carr

Waste Management Units:

221-T SF, 211-T, 271-T, 277-T Bld., 221-T R5

Time Frame of Daily Inspections:

2013-January 1-April 22

Items of Concern Noted (Circle)

YES□

NO⊠

If "YES", complete entire checklist.

If "NO", skip to Reviewer's signature and date.

Items of Concerns:

Attach copies of Daily Inspection sheets noting concern.

Dates of Corrective Actions:

Attach copies of Daily Inspection sheets noting concern.

Reviewer's Signature and Date:

Instructions:

Review Daily Waste Inspection checklists for any references to unplanned spills, releases or discharges associated with dangerous waste containers. Anomalies that would not affect closure of the unit such as missing labels, open containers, or dented containers, do not need to be documented.

If items of concern are noted, check "YES" and complete the entire checklist. If no items of concern are noted, check "NO" and skip to the signature and date field. Note that if no items of concern are noted for an extended period of time, the "Time Frame of Daily Inspections" can be January 1, 20xx to December 31, 20xx or even several years if no items of concern are noted.

If unplanned spills, releases or discharges are referenced on the inspection checklist, document the item of concern as "spill", "stain", "ruptured container", etc. Also note the date of the corrective action.

Attach copies of daily waste inspection checklists noting the items of concern and corrective actions.

Complete all review fields as applicable.

Summary of T Plant Weekly Dangerous Waste Inspection Checklist Review

Title of Weekly Waste Inspection Form:	Weekly Surveillance Log, <90-day Storage Areas and Satellite Accumulation Areas
	T Plant Weekly Inspection Log Sheet
Date of Weekly Waste Inspection Review:	8/26/13 - 8/28/13
Initial Reviewer's Name:	Jeff Bramson, Linda Carr, Paul Martin.
Final Reviewer's Name:	Lana Strickling*
· -	al checklists developed by the initial reviewers above to ems of concern, etc. related to the WMU's identified
Waste Management Units:	271-T Cage, 221T R5, 277-T Outdoor Storage Area, 211-T Pad, 221-T Sand Filter Pad**
**Inspection sheets were reviewed for any refeitems of concern.	erence to the waste management units identified for any
Time Frame of Inspections:	6/7/91 – 12/20/99***
***See attached log for weekly waste inspection number, sheet, revision, and title indicate miss	ons sheets reviewed. Line items missing date, document ing records.
Items of Concern Noted (Circle) If "YES", complete entire checklist. If "NO", skip to Reviewer's signature and date.	YES NO _X
Items of Concerns (Attach copies of Weekly Ins	pection sheets noting concern.):
Dates of Corrective Actions (Attach copies of W	/eekly Inspection sheets noting concern):
Reviewer's Signature and Date:	Kana Strickling 9/10/13
Instructions:	

Review Weekly Waste Inspection checklists for any references to unplanned spills, releases or discharges associated with dangerous waste containers. Anomalies that would not affect closure of the unit such as missing labels, open containers, or dented containers, do not need to be documented.

If items of concern are noted, check "YES" and complete the entire checklist. If no items of concern are noted, check "NO" and skip to the signature and date field. Note that if no items of concern are noted for an extended period of time, the "Time Frame of Weekly Inspections" can be January 1, 20xx to December 31, 20xx or even several years if no items of concern are noted.

If unplanned spills, releases or discharges are referenced on the inspection checklist, document the item of concern as "spill", "stain", "ruptured container", etc. Also note the date of the corrective action.

Attach copies of weekly waste inspection checklists noting the items of concern and corrective actions.

Complete all review fields as applicable.

te Sheet Revision Title																						NA SOLID WASTE TPLANT WEEKLY SURVEILLANCE LOG- <90-DAY STORAGE ,		NA SOLID WASTETP! ANT WEEKLY SURVEILLANCE LOG- <90-DAY STORAGE,					NA SOUR WASTETPI ANT WEEK! Y SURVEILLANCE LOG- <90-DAY STORAGE	Š			NA	NA	AN			Υ V	Ą	NA SOLID WASTE TPLANT WEEKLY SURVEILLANCE LOG- <90-DAY STORAGE ,				:	NA NA SOLID WASTE 1-PLANT WEEKLY SURVEILLANCE LOG- <90-DAY SLOKAGE AREAS &
· Document Date																						06/07/1991		06/21/1991	3				06/21/1991	1661/1700			08/21/1991	08/29/1991	09/09/1991	09/12/1991	09/26/1991	10/04/1991	10/11/1991	10/25/1991	11/07/1991				12/30/1991
DATE(S) Document Number																						6/7/1991 LOG-060791		6/21/1001 1 0.6-062191	WE TI 1991 LOCATION				7/22/1991 OG-072291	172/1331 LOG-012231			8/21/1991 LOG-082191	8/29/1991 LOG-082991	9/9/1991 LOG-090991	9/12/1991 LOG-091291	9/26/1991 LOG-092691	10/4/1991 LOG-100491	10/11/1991 I OG-101191	10/25/1991 LOG-102591	11/7/1991 LOG-110791				LOG-123091
Object Name/WEEK OF DEC 31-JAN 4	JAN 7TH	JAN 14TH	JAN 21TH	JAN 28TH	FEB 4TH	FEB 11TH	FEB 18TH	FEB 25TH	MAR 4TH	MAR 11TH	MAR 18TH	MAR 25TH	APRIL 1ST	APRIL 8TH	APRIL 15TH	APRIL 22ND	APRIL 29TH	MAY 6TH	MAY 13TH	MAY 20TH	MAY 27TH	I OG-060791 [D197044429]	IINE 10TH	100 062404 [D402044441]	IINE 24TH	JUL 24111	111 × 3411	JULI / III	JOC 020004 ID4020444681	JULY 29TH	AUG 5TH	AUG 12TH	LOG-082191 [D197044477]	LOG-082991 [D197044485]	LOG-090991 [D197044528]	LOG-091291 [D197044539]	LOG-092691 [D197044572]	I OG-100491 [D197044613]	1 OG-101191 ID1970446341	LOG-102591 ID1970446551	LOG-110791 [D197044671]	NOV 11TH	NOV 18TH	NOV 25TH	LOG-123091 [D197044751]

Object Name/WEEK OF DATE(S)	Document Number	Document Date Sheet Revision Title	Sheet	Revision	
LOG-120391 [D197044680]	LOG-120391	12/03/1991	NA	NA	SOLID WASTE T-PLANT WEEKLY SURVEILLANCE LOG- <90-DAY STORAGE AREAS &
LOG-122791 [D197044725]	106-122791	12/27/1991	NA	NA	SOLID WASTE T-PLANT WEEKLY SURVEILLANCE LOG- <90-DAY STORAGE AREAS 8
LOG-121891 [D197044712]	LOG-121891	12/18/1991	NA	NA	SOLID WASTE T-PLANT WEEKLY SURVEILLANCE LOG- <90-DAY STORAGE AREAS &
LOG-121891 [D197044712]	L0G-121891	12/18/1991	ΝΑ	NA	SOLID WASTE T-PLANT WEEKLY SURVEILLANCE LOG- <90-DAY STORAGE AREAS &

1992 Weekly Dangerous Waste Inspections

Revision Title	NA SOLID WASTE TPLANT WEEKLY SURVEILLANCE LOG- <90-DAY STORAGE AREAS & SATELLITE	NA SOLID WASTE TPLANT WEEKLY SURVEILLANCE LOG- <90-DAY STORAGE AREAS	NA SOLID WASTE TPLANT WEEKLY SURVEILLANCE LOG- <90-DAY STORAGE AREAS	NA SOLID WASTE TPLANT WEEKLY SURVEILLANCE LOG- <90-DAY STORAGE AREAS	NA SOLID WASTE TPLANT WEEKLY SURVEILLANCE LOG- <90-DAY STORAGE AREAS	NA SOLID WASTE TPLANT WEEKLY SURVEILLANCE LOG- <90-DAY STORAGE AREAS		NA SOLID WASTE TPLANT WEEKLY SURVEILLANCE LOG- <90-DAY STORAGE AREAS	NA SOLID WASTE TPLANT WEEKLY SURVEILLANCE LOG- <90-DAY STORAGE AREAS	NA SOLID WASTE TPLANT WEEKLY SURVEILLANCE LOG- <90-DAY STORAGE AREAS	NA SOLID WASTE TPLANT WEEKLY SURVEILLANCE LOG- <90-DAY STORAGE AREAS	NA SOLID WASTE TPLANT WEEKLY SURVEILLANCE LOG- <90-DAY STORAGE AREAS		NA SOLID WASTE TPLANT WEEKLY SURVEILLANCE LOG- <90-DAY STORAGE AREAS	NA SOLID WASTE TPLANT WEEKLY SURVEILLANCE LOG- <90-DAY STORAGE AREAS		NA SOLID WASTE TPLANT WEEKLY SURVEILLANCE LOG- <90-DAY STORAGE AREAS	NA SOLID WASTE TPLANT WEEKLY SURVEILLANCE LOG- <90-DAY STORAGE AREAS	NA SOLID WASTE TPLANT WEEKLY SURVEILLANCE LOG- <90-DAY STORAGE AREAS	NA SOLID WASTE TPLANT WEEKLY SURVEILLANCE LOG- <90-DAY STORAGE AREAS	NA SOLID WASTE TPLANT WEEKLY SURVEILLANCE LOG- <90-DAY STORAGE AREAS	NA SOLID WASTE TPLANT WEEKLY SURVEILLANCE LOG- <90-DAY STORAGE AREAS	NA SOLID WASTE TPLANT WEEKLY SURVEILLANCE LOG- <90-DAY STORAGE AREAS	NA SOLID WASTE TPLANT WEEKLY SURVEILLANCE LOG- <90-DAY STORAGE AREAS	NA SOLID WASTE TPLANT WEEKLY SURVEILLANCE LOG- <90-DAY STORAGE AREAS	NA SOLID WASTE TPLANT WEEKLY SURVEILLANCE LOG- <90-DAY STORAGE AREAS
Sheet	NA	NA	¥ Y	NA A	A A	AN	N A	N A	NA A	Ā	NA	ΑΝ		A A	NA		NA	NA	ΑN	NA	ΑĀ	N A	AN AN	NA A	NA A	۲ ۲
Document Date	01/06/1992	01/15/1992	01/24/1992	01/28/1992	02/04/1992	02/10/1992	02/21/1992	02/24/1992	03/04/1992	03/11/1992	03/17/1992	03/25/1992		04/14/1992	04/29/1992		05/15/1992	05/15/1992	06/03/1992	06/09/1992	06/17/1992	06/23/1992	07/01/1992	07/08/1992	07/14/1992	07/22/1992
Document Number	LOG-010692	LOG-011592	LOG-012492	LOG-012892	LOG-020492	LOG-021092	LOG-022192	LOG-022492	LOG-030492	LOG-031192	LOG-031792	LOG-032592		LOG-041492	LOG-042992		LOG-051592	LOG-052792	LOG-060392	LOG-060992	LOG-061792	LOG-062392	LOG-070192	LOG-070892	LOG-071492	LOG-072292
<u>DATE(S)</u>		01/15/1992	01/24/1992	01/28/1992	02/04/1992	02/10/1992	02/21/1992	02/24/1992	03/04/1992	03/11/1992	03/17/1992	03/25/1992		04/14/1992	04/29/1992		05/15/1992	5/27/1992	06/03/1992	06/09/1992	06/17/1992	06/23/1992	07/01/1992	07/08/1992	07/14/1992	07/22/1992 1992: JULY 29; AUG: 5, 10, 19, 25, SEPT: 1, 11, 18, 22, 30 OCT: 8, 13, 20, 27, NOV: 4, 11, 19,
Object Name/WEEK OF	LOG-010692 [D197044757]	LOG-011592 [D197044848]	LOG-012492 [D197044895]	OG-012892 [D197044914]	LOG-020492 [D197044917]	.OG-021092 [D197044942]	.OG-022192 [D197044953]	_OG-022492 [D197044955]	LOG-030492 [D197044964]	LOG-031192 [D197044988]	LOG-031792 [D197044999]	LOG-032592 [D197045021]	MARCH 30TH	LOG-041492 [D197045025]	_OG-042992 [D197045027]	MAY 4TH	.OG-051592 [D197045032]	OG-052792 [D197045035]	OG-060392 [D197044409]	_OG-060992 [D197044251]	LOG-061792 [D197044297]	OG-062392 [D197044302]	LOG-070192 [D197044341]	OG-070892 [D197044353]	OG-071492 [D197044373]	LOG-072292 [D197044402]

Page 1 of \$ 1 day (3

Object Name/MONTH OF 1993 JANUARY	<u>DATE(S)</u>	Document Number Document Date Sheet Revision Title	Document Date	Sheet	Revision	Title
LOG-020593 [D197044227]	1993 FEB: 5, 11, 19, 24,	LOG-020593	02/05/1993	NA A	VA VA	SOLID WASTE TPLANT WEEKLY INSPECTION LOG SHEET
LOG-030393 [D197043351]	1993 MAR: 3, 11, 19, 25	LOG-030393	03/03/1993	N A	NA	SOLID WASTE TPLANT WEEKLY INSPECTION LOG SHEET
LOG-040193 [D197043359]	1993 APRIL: 1, 7, 13, 23, 29	LOG-040193	04/01/1993	NA	NA	SOLID WASTE TPLANT WEEKLY INSPECTION LOG SHEET
LOG-050693 [D197043361]	1993 MAY: 6, 10, 21, 28	LOG-050693	05/06/1993	N A	NA	SOLID WASTE TPLANT WEEKLY INSPECTION LOG SHEET
LOG-060493 [D197043363]	1993 JUNE: 4, 11, 16, 25,	LOG-060493	06/04/1993	NA	NA	SOLID WASTE TPLANT WEEKLY INSPECTION LOG SHEET
LOG-070193 [D197043364]	1993 JULY: 1, 8, 15, 22, 29	LOG-070193	07/01/1993	NA	NA	SOLID WASTE TPLANT WEEKLY INSPECTION LOG SHEET
LOG-080593 [D197043369]	1993 AUG: 5, 11, 18, 24,	LOG-080593	08/05/1993	NA	NA	SOLID WASTE TPLANT WEEKLY INSPECTION LOG SHEET
LOG-090293 [D197043390]	1993 SEPT: 2, 10, 16, 22, 30	LOG-090293	09/02/1993	NA	NA	SOLID WASTE TPLANT WEEKLY INSPECTION LOG SHEET
LOG-100793 [D197043401]	1993 OCT: 7, 15, 21, 28.	LOG-100793	10/07/1993	NA	NA	SOLID WASTE TPLANT WEEKLY INSPECTION LOG SHEET
LOG-110493 [D197043403]	1993 NOV: 4, 10, 19, 23,	LOG-110493	11/04/1993	ν Α	NA	SOLID WASTE TPLANT WEEKLY INSPECTION LOG SHEET
LOG-120293 [D197043409]	1993 DEC: 2, 9, 15, 21, 30	LOG-120293	12/02/1993	N A	NA	SOLID WASTE T-PLANT WEEKLY INSPECTION LOG SHEET

	Solution in the latest of the	ESSENTIAL CONTRACTOR OF THE SECOND STATE OF TH				
Object Name	DATE(S) The second seco	Document Number	Document Date	Sheet	Revision	
LOG-010694 [D197043414]	1994: JAN: 6, 13, 20, 27	LOG-010694	01/06/1994	A	A A	SOLID WASTE TPLANT WEEKLY INSPECTION LOG SHEET
LOG-020394 [D197043420]	1994 FEB: 3, 9, 17, 23,	LOG-020394	02/03/1994	AM	NA A	SOLID WASTE TPLANT WEEKLY INSPECTION LOG SHEET
LOG-030394 [D197043423]	1994 MAR: 3, 9, 15, 25	LOG-030394	03/03/1994	NA	Υ Y	SOLID WASTE TPLANT WEEKLY INSPECTION LOG SHEET
LOG-040194 [D197043426]	1994 APRIL: 1, 6, 14, 20, 26	LOG-040194	04/01/1994	NA A	N A	SOLID WASTE TPLANT WEEKLY INSPECTION LOG SHEET
LOG-050594 [D197043430]	1994 MAY: 5, 9, 17, 24, JUNE 1	LOG-050594	05/05/1994	AA	N A	SOLID WASTE TPLANT WEEKLY INSPECTION LOG SHEET
LOG-060194 [D197043444]	1994 JUNE: 1, 7, 15, 23, 27,	LOG-060194	06/01/1994	NA	A A	SOLID WASTE TPLANT WEEKLY INSPECTION LOG SHEET
LOG-070694 [D197043445]	1994 JULY: 6, 14, 19, 27.	LOG-070694	07/06/1994	NA A	N A	SOLID WASTE TPLANT WEEKLY INSPECTION LOG SHEET
LOG-080394 [D197043446]	1994 AUG: 3, 10, 16, 23,	LOG-080394	08/03/1994	Ā	N A	SOLID WASTE TPLANT WEEKLY INSPECTION LOG SHEET
LOG-090194 [D197043947]	1994 SEPT: 1, 7, 14, 19, 26,	LOG-090194	09/01/1994	N A	NA A	SOLID WASTE TPLANT WEEKLY INSPECTION LOG SHEET
						SOLID WASTE TPLANT WEEKLY INSPECTION LOG SHEET/T PLANT WASTE MANAGEMENT AREA WEEKLY INSPECTION LOG
LOG-100394 [D197043956]	1994 OCT: 3, 10, 17, 24, 31	LOG-100394	10/03/1994	NA	NA	SHEET - HAZARDOUS & MIXED WASTE
						SOLID WASTE TPLANT WASTE MANAGEMENT AREA WEEKLY
LOG-110794 [D197043970]	1994 NOVEMBER: 7, 14, 22, 28	LOG-110794	11/07/1994	NA	NA	INSPECTION LOG SHEET-HAZARDOUS & MIXED WASTE
1 O.5. 120604 ID4070440033	4004 DECEMBED: 5 44 20 28	100.420604	12/05/14007	δN.	· • • • • • • • • • • • • • • • • • • •	SOLID WASTE T-PLANT WASTE MANAGEMENT AREA WEEKLY INSPECTION I OG SHEET-HAZARDOUS & MIXED WASTE
LOG-120384 ID 187 044083	1994 DECEMBEN. 9, 14, 40, 40	LOG* 120394	1881 180/71	2	ξ	

Object Name/MONTH OF	DATE(S)	Document Number Document Date Sheet Revision Title	Document Date	Sheet	Revision	
LOG-010395 [D197044125] 1995 FEB 1995 MARCH 1995 APRIL		LOG-010395	01/03/1995	Ą	NA	SOLID WASTE TPLANT WASTE MANAGEMENT AREA WEEKLY INSPECTION LOG SHEET-HAZARDOUS & MIXED WASTE
1995 IMAY LOG-062195 [D197045039]	1995 JUNE: 20	LOG-062195	06/21/1995	¥	AA	SOLID WASTE TPLANT WASTE MANAGEMENT AREA WEEKLY INSPECTION LOG SHEET-HAZARDOUS & MIXED WASTE
LOG-071995 [D197045042]	1995 JULY: 19, 27	LOG-071995	07/19/1995	Ä	NA	SOLID WASTE TPLANT WASTE MANAGEMENT AREA WEEKLY INSPECTION LOG SHEET-HAZARDOUS & MIXED WASTE
LOG-081595 [D197045045]	1995 AUGUST: 15, 23, 28	LOG-081595	08/15/1995	Ϋ́	NA	SOLID WASTE TPLANT WASTE MANAGEMENT AREA WEEKLY INSPECTION LOG SHEET-HAZARDOUS & MIXED WASTE
LOG-091195 [D197045049]	1995 SEPTEMBER: 7, 11, 14, 19, 27	LOG-091195	09/11/1995	NA A	NA	SOLID WASTE TPLANT WASTE MANAGEMENT AREA WEEKLY INSPECTION LOG SHEET-HAZARDOUS & MIXED WASTE
LOG-100495 [D197045096]	1995 OCTOBER 2, 10, 18, 24	LOG-100495	10/04/1995	Α A	AN A	SOLID WASTE TPLANT WASTE MANAGEMENT AREA WEEKLY INSPECTION LOG SHEET-HAZARDOUS & MIXED WASTE
LOG-110195 [D197045103]	1995 NOVEMBER: 1, 6, 15, 27	LOG-110195	11/01/1995	¥.	NA	SOLID WASTE TPLANT WASTE MANAGEMENT AREA WEEKLY INSPECTION LOG SHEET-LOW-LEVEL WASTE/HAZARDOUS & MIXED WASTE
LOG-121595 [D197045111]	1995 DECEMBER: 15, 19, 29	LOG-121595	12/15/1995	N A	NA	SOLID WASTE T-PLANT WASTE MANAGEMENT AREA WEEKLY INSPECTION LOG SHEET-LOW-LEVEL WASTE/HAZARDOUS & MIXED WASTE

			WASHINGTON TO STREET A STREET OF STREET	CE LUCIE TO THE PROPERTY OF	and the second second
Object Name/MONTH OF	DAIE(S)	Document Number	Document Date	Sheet Revision	
					SOLID WASTE TPLANT WASTE MANAGEMENT AREA WEEKLY INSPECTION LOG SHEET-LOW-LEVEL
LOG-011596 [D197045115]	1996 JANUARY: 15, 22, 30	LOG-011596	01/15/1996	NA	WASTE/HAZARDOUS & MIXED WASTE
					SOLID WASTE TPLANT WASTE MANAGEMENT AREA WEEKLY INSPECTION LOG SHEET-LOW-LEVEL
LOG-020596 [D197045121]	1996 FEBRUARY: 5, 13, 23,	LOG-020596	02/05/1996	NA	WASTE/HAZARDOUS & MIXED WASTE
					SOLID WASTE TPLANT WASTE MANAGEMENT AREA WEEKLY INSPECTION LOG SHEET-LOW-LEVEL
LOG-030396 [D197045128]	1996 MARCH: 1, 8, 15, 20 AND 29	LOG-030396	03/03/1996	NA NA	WASTE/HAZARDOUS & MIXED WASTE
					SOLID WASTE TPLANT WASTE MANAGEMENT AREA WEEKLY INSPECTION LOG SHEET-LOW-LEVEL
LOG-040196 [D197045147]	1996 APRIL: 1, 8, 18, 26	LOG-040196	04/01/1996	NA	WASTE/HAZARDOUS & MIXED WASTE
					SOLID WASTE TPLANT WASTE MANAGEMENT AREA WEEKLY INSPECTION LOG SHEET-LOW-LEVEL
LOG-052896 [D197045163]	1996 MAY: 28	LOG-052896	05/28/1996	NA	WASTE/HAZARDOUS & MIXED WASTE
					SOLID WASTE TPLANT WASTE MANAGEMENT AREA WEEKLY INSPECTION LOG SHEET-LOW-LEVEL
LOG-060696 [D197045179]	1996 JUNE: 6, 12, 27,	P69090-507	06/06/1996	NA	WASTE/HAZARDOUS & MIXED WASTE
1996 AUGUST					
					SOLID WASTE TPLANT WASTE MANAGEMENT AREA WEEKLY INSPECTION LOG SHEET-LOW-LEVEL
LOG-090396 [D197045193] 1996 OCTOBER	1996 SEPTEMBER: 3, 23	96£060-5O7	09/03/1996	NA	WASTE/HAZARDOUS & MIXED WASTE
1996 NOVEMBER					
					SOLID WASTE T-PLANT WASTE MANAGEMENT AREA WEEKLY INSPECTION LOG SHEET - HAZARDOUS &
LOG-122396 [D197045213]	1996 DECEMBER: 23	LOG-122396.	12/23/1996	NA NA	MISED WASTE/LOW LEVEL WASTE

THE TABLE MANTANDEA WEEK! VINODECTION LOCK CUT DAZADDOLIS & MINED WASTETAL SO 2741 BLDG	SHI HAZARDOUS & MIXED WAS LE [ALSO SHT HAZARDOUS & MIXED WASTE [ALSO	T PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT HAZARDOUS & MIXED WASTE [ALSO 2711 BLDG]	SHT HAZARDOUS & MIXED WASTE [ALSO 271T	SHT HAZARDOUS & MIXED WASTE [ALSO 271T	SHT HAZARDOUS & MIXED WASTE [ALSO 271T	T PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT HAZARDOUS & MIXED WASTE [ALSO 2711 BLDG] T PLANT WASTE MANT APEA WITTER STATED FOR SHIT HAZARDOUS & MIXED WASTE IN SO 2711 BLDG]	SHI HAZARDOUS & MIXED WASTE (ALSO 2/11)	PLANT WASTE MOME AREA WEEK! Y INSPECTION LOG SHIT HAZARDOUS & MIXED WASTE IALSO 271T	SHT HAZARDOUS & MIXED WASTE [ALSO 2717	T PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT HAZARDOUS & MIXED WASTE [ALSO 271T BLDG]	SHT HAZARDOUS & MIXED WASTE [ALSO 271T	PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT HAZARDOUS & MIXED WAS IE JALSO 2711	I PLANT WASTE MGMT AREA WEEKLY INSPECTION LOGISHT HAZAKDOOLS & MIXED WASTE (ALSO 2711 BLDG). IT DI ANT WASTE MONTABEA MEEKLY INSPECTION LOGISHT HAZARDOOLS & MIXED WASTE (ALSO 2711 BLDG).	SHI HAZARDOOS & MIKED WASTE [ALSO 2711	SHT HAZARDOUS & MIXED WASTE [ALSO 2717]	Kym Has - Copied from RHA box number: 149635	Kym Has - Copied from RHA box number: 149635	Kym Has - Copied from RHA box number: 149635	Kym Has - Copied from RHA box number: 149635	Kym Has - Copied from KHA Box Number: 1489-35 Fym Has - Copied from KHA Box Number: 1489-35 Fym Has - Copied from KHA Box Number: 1489-35 Fym Has - Copied from KHA Box Number: 1489-35	I PELANI WASZIE MÜGIII AREA WEEKLI INSTECTION LOG SHI TAZARADOOS & WINSED WASJE (FL-SO, CLI I BELOG) I PELANI WASZIE MÜGIII AREA WEEKLI YINSPECTION LOG SHI TAZARADOOS & WINSED WASJE (FL-SO, CLI I BELOG) I T DI ANT WASZIE MÜGIII AREA WEEKLI VINSPECTION I OG SHI TAZARADOIS & MINYED WASZIE IAI SO, 2717 RI DGI	T PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT HAZARDOUS & MIXED WASTE [ALSO 2711 BLDG]	SHT HAZARDOUS & MIXED WASTE [ALSO 271T	SHT HAZARDOUS & MIXED WASTE [ALSO 271T	PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHITHAZARDOUS & MIXED WASTE JALSO	SHT HAZARDOUS & MIXED WASTE [ALSO 2711]	SHT HAZARDOUS & MIXED WASTE [ALSO 271T	T PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT HAZARDOUS & MIXED WASTE [ALSO 271T BLDG]	T PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT HAZARDOUS & MIXED WASTE [ALSO 2717 BLDG]	PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG	T PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT HAZARDOUS & MIXED WASTE JALSO 2711 BLDG.	T FLANT WAS ITE MIGMI TAKEN WEETEN I INSCRIPTION I OF SELFACE YING THE INCOMITATION OF SELFACE AND THE WEETEN INSCRIPTION I OF SELFACE	HS	T PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT [ALSO 271T BLDG]	T PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT [ALSO 271T BLDG]	T PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT [ALSO 271T BLDG]	T PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO 271T BLDG]		T PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO 271T BLDG]
Sheet Revision	₹ ¤	Z Z	NA	NA	Z Z	Υ ź	₹ ¤	(4 Z Z	Z Z	ΑĀ	Z Y	¥:	₹ Z	₹ ₹	ζ Z					-	₹ ₹	ζ Z Z	ΑĀ	₹ Z	₹	ζ Z	₹ Z	ΝΑ	Ν V	¥:	₹ S	ζ <u>γ</u>	Ç Y	A A	ΑĀ	₹ Z	A A	NA	Y Y
	∀	ž Ž	Ä	Ϋ́	Y Y	¥ ?	4	Z Z	₹ ¥	Ϋ́	Ϋ́	Ϋ́Z :	₹ Z	₹ ₹	₹ ₹		266	266	266		₹ <u>\$</u>	¥ ¥	A A	Y.	¥:	4 Z	Υ Υ	Ϋ́	Ϋ́	¥ :	¥ à	ξ < 2 Z	ζ <u> </u>	A A	Α	Ą Z	₹ Z	¥	A V
Document Ni Document Date	02/28/1997	03/11/97	03/17/97	03/24/1997	04/03/97	04/10/97	04/14/9/	05/09/1997	05/16/1997	05/19/97	05/27/97	26/90/90	06/16/97	06/23/97	07/01/97	7/11/1997	7/22/1997	7/28/1997	8/5/1997	8/11/1997	08/18/9/	09/03/97	76/80/60	09/19/1997	09/26/1997	10/06/97	10/13/97	10/20/97	10/27/97	11/03/97	11/10/97	11/26/1997	12/05/1997	12/12/1997	12/19/1997	12/23/1997	05/01/1998	05/08/1998	05/15/1998
Documen	₹ Z	₹ ₹	Ā	N A	NA	¥:	¥	ζ Z Δ	₹ ¥	NA	NA	¥:	¥ S	¥ ×	Y X						¥ ≥	¥ ¥	N A	NA	₹:	₹ ₹	X X	ΝΑ	ΝΑ	NA NA	₹ Z	<u> </u>	(A	¥ X	N A	NA	A N	¥	N A
neo.	Chen	Open	Open	Open	<u>Open</u>	Open	Coeu	Open	Open	Open	Open	Open	Open	Open	Open						Open	Open	Open	Open	Open	Onen	Open	Open	Open	Open	Open	Open	Onen	Open	Open	Open	Open	Open	Open
Prope	Properties	Properties	Properties	Properties	Properties	Properties	Properties	Properties	Properties	Properties	Properties	Properties	Properties	Properties	Properties	٠.	266	266	266	_ `	Properties	Properties	Properties	Properties	Properties	Properties	Properties	Properties	Properties	Properties	Properties	Properties	Properties	Properties	Properties	Properties	Properties	Properties	Properties
EK OF 43																7/11/1997	7/22/1997	7/28/1997	8/5/1997	8/11/1997																			
Object Name/WEEK OF DEC 30 THRU JAN 3 JAN 6TH JAN 13TH JAN 20TH FEB 3RD FEB 10TH FEB 2TH FEB 2TH	NA [D8724972]	NA ID87249671	NA [D8724966]	NA [D8724964]	NA [D8724804]	NA [D8723959]	NA ID8723954	NA ID87239481	NA ID87239421	NA [D8723941]	NA [D8723938]	NA [D8723935]	NA [D8723899]	NA [D8723902]	NA ID87238871						NA [D8/23338]	NA ID87233261	NA [D8723317]	NA [D8723307]	NA [D8723196]	NA ID8723189	NA ID87231801	NA [D8723174]	NA [D8723167]	NA [D8723126]	NA [D8723001]	NA [D8/22819]	NA [D8722813]	NA [D8722810]	NA [D8722806]	NA [D8722801]	DEC 30TH NA [D8721807]	NA [D8722674]	NA [D8721803]

BLDG 271T 271T BLDG 271T BLDG
SHT
ON LOG
SPECTIC SPECTIC SPECTIC
DAILY IN
AREA [AREA [AREA [
E MGMT E MGMT E MGMT
PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO
T PLAN T PLAN
₹ ₹ ₹
Z Z Z
866 866 866
11/25/1998 12/04/1998 12/11/1998
A A A
Open Open
Open Open
Open Open
Open Open

Object Name/WEEK OF	Document Date Sheet	Revision	
NA 108678087	01/0//1998	NA V	PLANT WASTE MGMT AREA WEEKLY INSPECTION LOGSHT HAZAKDOUS & MIXED WASTE [ALSO Z711 BLDG]
NA [D8678083]	01/14/1998	V V V	SHT HAZARDOUS & MIXED WASTE [ALSO 271T
NA [D8678084]	01/20/1998	¥Z	SHT HAZARDOUS & MIXED WASTE [ALSO 271]
NA [D8678082]	01/26/1998	A A	SHT HAZARDOUS & MIXED WASTE [ALSO 2717
NA [D8678079]	02/02/1998	NA	SHT HAZARDOUS & MIXED WASTE [ALSO 271T
NA [D8678077]	02/09/1998	NA V	SHT HAZARDOUS & MIXED WASTE [ALSO 271T
NA [D8678073]	02/17/1998	ΑΝ	SHT HAZARDOUS & MIXED WASTE [ALSO 271T
NA [D8678069]	02/23/1998	YA V	SHT HAZARDOUS & MIXED WASTE [ALSO 271T
NA [D8678072]	03/03/1998	NA A	271T
NA [D8678068]	03/09/1998	NA	MGMT AREA WEEKLY INSPECTION LOG
NA [D8678065]	03/16/1998	AN	PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT HAZARDOUS & MIXED WASTE [ALSO 2717 BLDG]
NA [D8678063]	03/24/1998	NA	271T
NA [D8678061]	03/30/1998	NA	PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT HAZARDOUS & MIXED WASTE [ALSO 271T BLDG]
NA [D8678057]	04/07/1998	Y _A	PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT HAZARDOUS & MIXED WASTE [ALSO 271T BLDG]
NA [D8678054]	04/13/1998	NA	PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT HAZARDOUS & MIXED WASTE [ALSO 2717 BLDG]
NA [D8678049]	04/20/1998	AN	PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT HAZARDOUS & MIXED WASTE [ALSO 271T BLDG]
NA [D8678044]	04/29/1998	NA	PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT [ALSO 271T BLDG]]
NA [D8721807]	05/01/1998	NA	PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO 271T BLDG]
NA [D8678040]	05/04/1998	AN	PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT [ALSO 271T BLDG]
NA [D8722674]	05/08/1998	NA NA	PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 2711]
NA [D8721803]	05/15/1998	AN	PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO 271T BLDG]
NA [D8722777]	05/15/1998	NA NA	PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT [ALSO 271T BLDG]
NA [D8722780]	05/21/1998	ΨX	PI ANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT IALSO 271T BLDG:
NA [D8721798]	05/22/1998	Ϋ́	PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO 271T BLDG]
NA ID86780321	05/26/1998	¥N	PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT [ALSO 271T BLDG]
NA [D8721794]	05/29/1998	NA	PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO 271T BLDG]
NA [D8722785]	06/05/1998	AN	PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT [ALSO 2717 BLDG]
NA [D8722697]	06/05/1998	NA NA	PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 271T]
NA [D8677657]	06/10/1998	NA	PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT [ALSO 271T BLDG]
NA [D8722692]	06/12/1998	AN A	PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 271T]
NA [D8677652]	06/17/1998	NA	PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 06/21/1998 [ALSO 271T BLDG]
NA [D8722688]	06/19/1998	NA	PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 2711]
NA [D8677647]	06/23/1998	NA	
NA [D8722682]	06/26/1998	NA	PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 271T]
NA [D8722795]	07/01/1998	NA	
NA [D8722789]	07/01/1998	NA	PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT [ALSO 2717 BLDG]
NA [D8722670]	07/02/1998	Y :	PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 2711]
NA [D8722762]	07/10/1998	A A	PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT [ALSO 271] BLDG]
NA [D8722666]	07/10/1998	NA	PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 2711]
NA [D8677555]	07/13/1998	NA AN	PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT [ALSO 2717 BLDG]
NA [D8722659]	07/17/1998	NA	PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 271T]
NA [D8677545]	07/22/1998	NA V	PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT [ALSO 2717 BLDG]
NA [D8722651]	07/24/1998	NA	PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 2717]
NA [D8677539]	07/29/1998	NA	PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT [ALSO 2717 BLDG]
NA [D8722640]	07/31/1998	NA	PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 2717]
NA [D8677530]	08/03/1998	NA	PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT [ALSO 271T BLDG]
NA [D8722637]	08/07/1998	NA	PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 2711]
NA [D8677521]	08/11/1998	NA V	PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 08/14/1998 [ALSO 271T BLDG]



Object Name/WEEK OF	Document Date Sheet	Revision	
NA [D8722635]		NA	T PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 2711]
NA [D8677514]	08/17/1998	Ν Α	T PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 08/21/1998 [ALSO 271T BLDG]
NA [D8722631]	08/21/1998	A A	T PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 271T]
NA [D8677511]	08/24/1998	NA	T PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 08/24/1998 [ALSO 271T BLDG]
NA [D8722627]	08/28/1998	ΑN	T PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 271T]
NA [D8722770]	09/01/1998	NA	T PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT [ALSO 271T BLDG]
NA ID8732454]	09/04/1998	NA	T PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT JALSO 271T]
NA [D8722620]	09/11/1998	ΑN	T PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 2711]
NA [D8722774]	09/11/1998	ΑN	T PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT [ALSO 271T BLDG]
NA [D8677507]	09/14/1998	ΑN	T PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 09/19/1998 [ALSO 271T BLDG]
NA [D8722618]	09/18/1998	NA	T PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 271T]
NA [D8677503]	09/21/1998	ΑN	T PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 09/25/1998 [ALSO 271T BLDG]
NA [D8722617]	09/25/1998	NA	
NA [D8677499]	09/28/1998	N A	T PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 10/04/1998 [ALSO 271T BLDG]
NA [D8722614]	10/02/1998	NA	
NA [D8722612]	10/09/1998	NA	T PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 271T]
NA [D8677484]	10/12/1998	NA	T PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 10/18/1998 [ALSO 271T BLDG]
NA [D8677493]	10/12/1998	N A	T PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 10/11/1998 [ALSO 271T BLDG]
NA [D8722606]	10/16/1998	NA	T PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 271T]
NA [D8677480]	10/19/1998	NA	T PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 10/24/1998 [ALSO 271T BLDG]
NA [D8677475]	10/20/1998	NA	T PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 10/31/1998 [ALSO 271T BLDG]
NA [D8722594]	10/23/1998	NA	T PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 271T]
NA [D8722590]	10/30/1998	NA	T PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 2711]
NA [D8677468]	11/02/1998	AN	T PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 11/07/1998 [ALSO 271T BLDG]
NA [D8722585]	11/06/1998	NA	T PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 2711]
NA [D8677461]	11/09/1998	NA	T PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 11/14/1998 [ALSO 271T BLDG]
NA [D8722577]	11/13/1998	NA	T PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 271T]
NA [D8677448]	11/13/1998	A A	T PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 11/23/1998 [ALSO 271T BLDG]
NA [D8677456]	11/16/1998	N A	T PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 11/21/1998 [ALSO 271T BLDG]
NA [D8722571]	11/20/1998	NA	T PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 271T]
NA [D8722558]	11/25/1998	NA	T PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 271T]
NA [D8677440]	11/30/1998	NA A	T PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 12/05/1998 [ALSO 271T BLDG]
NA [D8722345]		NA	T PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO 271T BLDG]
NA [D8677405]		NA	TREATMENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 12/12/1998 [ALSO 2711
NA [D8722168]	12/11/1998 NA	NA	T PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO 271T BLDG]
NA [D8722168]	12/11/1998 NA	NA	T PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO 271T BLDG]
NA [D8722168]	12/11/1998	NA	T PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO 271T BLDG]
NA [D8677348]	12/14/1998 NA	NA	TREATMENT FACILITY WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO 271T BLDG]
NA [D8677348]	12/14/1998 NA	NA	TREATMENT FACILITY WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO 271T BLDG]
NA [D8677348]	12/14/1998 NA	NA	TREATMENT FACILITY WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO 271T BLDG]
NA [D8677351]	12/14/1998 NA	NA	TREATMENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 12/12/1998 [ALSO 2717
NA [D8677351]		NA	TREATMENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 12/12/1998 [ALSO 2711
NA [D8677342]	12/21/1998 NA	NA	TREATMENT FACILITY WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO 271T BLDG]
NA [D8676432]	12/28/1998 NA	NA	TREATMENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 01/03/1999 [ALSO 2717



Object Name/WEEK OF	Document Date Sheet	Revision	
NA [D8678087]	01/07/1998	NA A	T PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT HAZARDOUS & MIXED WASTE [ALSO 271T BLDG]
NA [D8678083]	01/14/1998	NA	F PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT HAZARDOUS & MIXED WASTE [ALSO 2711 BLDG]
NA [D8678084]	01/20/1998	NA	F PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT HAZARDOUS & MIXED WASTE [ALSO 271T BLDG]
NA [D8678082]	01/26/1998	NA	F PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT HAZARDOUS & MIXED WASTE [ALSO 271T BLDG]
NA [D8678079]	02/02/1998	NA	F PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT HAZARDOUS & MIXED WASTE [ALSO 271T BLDG]
NA [D8678077]	02/09/1998	NA A	[ALSO 271T
NA [D8678073]	02/17/1998	NA	271T
NA [D8678069]	02/23/1998	NA	F PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT HAZARDOUS & MIXED WASTE [ALSO 271T BLDG]
NA [D8678072]	03/03/1998	ΝΑ	271T
NA [D8678068]	03/09/1998	NA AN	271T
NA [D8678065]	03/16/1998	NA A	271T
NA [D8678063]	03/24/1998	NA	271T
NA [D8678061]	03/30/1998	NA A	F PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT HAZARDOUS & MIXED WASTE [ALSO 271T BLDG]
NA [D8678057]	04/07/1998	NA VA	F PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT HAZARDOUS & MIXED WASTE [ALSO 271T BLDG]
NA [D8678054]	04/13/1998	NA	F PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT HAZARDOUS & MIXED WASTE [ALSO 271T BLDG]
NA [D8678049]	04/20/1998	NA	F PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT HAZARDOUS & MIXED WASTE [ALSO 271T BLDG]
NA [D8678044]	04/29/1998	Y.	F PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT [ALSO 271T BLDG]]
NA [D8721807]	05/01/1998	N A	F PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO 271T BLDG]
NA [D8678040]	05/04/1998	NA A	F PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT [ALSO 271T BLDG]
NA [D8722674]	05/08/1998	NA	F PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 271T]
NA [D8721803]	05/15/1998	NA A	F PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO 271T BLDG]
NA [D8722777]	05/15/1998	NA	F PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT [ALSO 271T BLDG]
NA [D8722780]	05/21/1998	NA	F PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT [ALSO 271T BLDG]
NA [D8721798]	05/22/1998	NA	F PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO 271T BLDG]
NA [D8678032]	05/26/1998	NA	F PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT [ALSO 271T BLDG]
NA [D8721794]	05/29/1998	NA VA	F PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO 271T BLDG]
NA [D8722785]	06/05/1998	¥ N	F PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT [ALSO 271T BLDG]
NA [D8722697]	06/05/1998	NA	F PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 271T]
NA [D8677657]	06/10/1998	₽N:	F PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT [ALSO 271T BLDG]
NA [D8722692]	06/12/1998	ĕã	F PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 271T]
NA 1086/7652	06/11/71998	¥.	FILM WASTE MIGHT AREA WEEKLY INSPECTION LOG SHI FOR WEEK ENDING 06/21/1998 [ALSO 2/11 BLDG]
NA ID8/22688	06/19/1998	A N	FLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 27/1]
NA 1060/ 764/	00/23/1998	Y 2	FLANT WASTE MOUNT AREA WEENLY INSTELLOU LOG STIL (ALSO CTILEDLO)
NA [D8722795]	00/20/1998 07/01/1988	¥ 4	FLANT WASTE MOMENTAREA DAIL? INSPECTION LOGISH [ALSO BLUG 27.1.] FIDEANT WASTE MOMT ABEA WEEK! VINSDECTION FOR SHITM OF SHITM OF
NA FD87227801	07/04/4008	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	ED ANT WASTE AMOUNT ADEA WEEK! VINSEETION LOG COLUMN TO
NA [D8722670]	07/02/1998	Y AV	PI ANT WASTE MGMT AREA DAILY INSPECTION LOG SHITIAL OF REDUCTION LOG SHITIAL OF REPUBLICATION OF SHITIAL OF SH
NA ID87227621	07/10/1998	ΔN	P ANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT AS S 271 R DG
NA [D8722666]	07/10/1998	Z Z	PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT I'AI SO BI DG 27171
NA (D8677555)	07/13/1998	¥	PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT (ALSO 271T BLDG)
	07/17/1998	¥Z	PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 271T]
NA [D8677545]	07/22/1998	NA V	PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT [ALSO 271T BLDG]
		NA AN	PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 271T]
_		Y Y	PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT [ALSO 271T BLDG]
_		VA	PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 271T]
NA [D8677530]		NA V	PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT [ALSO 271T BLDG]
NA [D8722637]	08/07/1998	NA A	PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 271T]

Object Name/WEEK OF	Document Date Sheet	Revision	Tille
NA [D8677521]		ΝΑ	T PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 08/14/1998 [ALSO 271T BLDG]
NA [D8722635]	08/14/1998	Ą	T PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT IALSO BLDG 271TI
NA [D8677514]	08/17/1998	A A	T PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 08/21/1998 [ALSO 271T BLDG]
NA [D8722631]	08/21/1998	¥N Y	F PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 271T]
NA [D8677511]	08/24/1998	NA	F PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 08/24/1998 [ALSO 271T BLDG]
NA [D8722627]	08/28/1998	N A	T PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 271T]
NA [D8722770]	09/01/1998	NA A	T PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT [ALSO 271T BLDG]
NA [D8732454]	09/04/1998	¥	T PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO 271T]
NA [D8722620]	09/11/1998	NA	T PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 271T]
NA [D8722774]	09/11/1998	NA	T PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT [ALSO 271T BLDG]
NA [D8677507]	09/14/1998	NA	T PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 09/19/1998 [ALSO 271T BLDG]
NA [D8722618]	09/18/1998	ΑA	T PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 271T]
NA [D8677503]	09/21/1998	NA	T PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 09/25/1998 [ALSO 271T BLDG]
NA [D8722617]	09/25/1998	N A	T PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 271T]
NA [D8677499]	09/28/1998	NA	F PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 10/04/1998 [ALSO 271T BLDG]
NA [D8722614]	10/02/1998	NA A	T PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 271T]
NA [D8722612]	10/09/1998	NA	T PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 2711]
NA [D8677484]	10/12/1998	NA	T PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 10/18/1998 [ALSO 271T BLDG]
NA [D8677493]	10/12/1998	N A	T PLANT WASTE MGMT AREÁ WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 10/11/1998 [ALSO 271T BLDG]
NA [D8722606]	10/16/1998	NA	T PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 271T]
NA [D8677480]	10/19/1998	ΝΑ	T PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 10/24/1998 [ALSO 271T BLDG]
NA [D8677475]	10/20/1998	Ϋ́	T PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 10/31/1998 [ALSO 271T BLDG]
NA [D8722594]	10/23/1998	Y Y	T PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 271T]
NA [D8722590]	10/30/1998	Ϋ́	T PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 271T]
NA [D8677468]	11/02/1998	A	T PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 11/07/1998 [ALSO 271T BLDG]
NA [D8722585]	11/06/1998	A	T PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 271T]
NA [D8677461]	11/09/1998	NA	T PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 11/14/1998 [ALSO 271T BLDG]
NA [D8722577]	11/13/1998	N A	T PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 271T]
NA [D8677448]	11/13/1998	NA	T PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 11/23/1998 [ALSO 271T BLDG]
NA [D8677456]	11/16/1998	Y Y	T PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 11/21/1998 [ALSO 271T BLDG]
NA [D8722571]	11/20/1998	NA V	T PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 271T]
NA [D8722558]	11/25/1998	NA	T PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO BLDG 271T]
NA [D8677440]	11/30/1998	₹	T PLANT WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 12/05/1998 [ALSO 271T BLDG]
NA [D8722345]	12/04/1998	NA NA	T PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO 271T BLDG]
NA [D8677405]		ΝΑ	TREATMENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 12/12/1998 [ALSO 27
NA [D8722168]	12/11/1998 NA	ΑN	T PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO 271T BLDG]
NA [D8722168]	12/11/1998 NA	ΝΑ	T PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO 271T BLDG]
NA [D8722168]	12/11/1998	NA	T PLANT WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO 271T BLDG]
NA [D8677348]		¥N	TREATMENT FACILITY WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO 271T BLDG]
NA [D8677348]		NA	TREATMENT FACILITY WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO 271T BLDG]
NA [D8677348]		NA N	TREATMENT FACILITY WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO 271T BLDG]
NA [D8677351]	12/14/1998 NA	NA A	TREATMENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 12/12/1998 [ALSO 27
NA [D8677351]		N A	TREATMENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 12/12/1998 [ALSO 27
NA [D8677342]		¥	TREATMENT FACILITY WASTE MGMT AREA DAILY INSPECTION LOG SHT [ALSO 271T BLDG]
NA [D8676432]	12/28/1998 NA	Ϋ́	TREATMENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 01/03/1999 [ALSO 27

Object Name/WEEK OF Document Date NA ID86764281 01/04/1999 NA ID86764271 01/12/1999	Document Date 01/04/1999 01/12/1999	Sheet NA NA	Revision NA NA	TITIE TREATMENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 01/10/1999 [ALSO 271T BLDG] TREATMENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 01/17/1999 [ALSO 271T BLDG]
NA [D8676425]	01/18/1999	¥	N A	MENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 01/24/1999 [ALSO 271T
NA [D8676424]	01/25/1999	NA	NA	MENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 01/31/1999 JALSO 271T
NA [D8676419]	02/02/1999	¥:	¥:	MENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 02/07/1999 [ALSO 2717]
NA [D8676418]	02/02/1999	A A	A N	I REATMENT FACILITY WAS LE MOMT AREA WEENLY INSPECTION LOG SHI FOR WEEN EINDING UZUVI 1999 [ALSO 2711 BLDG] TREATMENT FACILITY WASTE MOMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 02/14/1999 [ALSO 2717 BLDG]
NA (D8676416)	02/10/1999	≨≨	ž ž	MENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 02/14/1999 [ALSO 27/17]
NA [D8676413]	02/14/1999	Y.	NA	MENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 02/21/1999 [ALSO
NA [D8676411]	02/23/1999	¥	NA	MENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 02/28/1999 [ALSO 271T
NA [D8676411]	02/23/1999	¥	N A	AENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 02/28/1999 [ALSO 271T
NA [D8676409]	03/02/1999	Ϋ́	NA V	MENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 03/07/1999 [ALSO 271T
NA [D8676407]	03/09/1999	¥	N N	LOG SHT FOR WEEK ENDING 03/14/1999 [ALSO 271T
NA [D8676407]	03/09/1999	≨ :	¥:	LOG SHT FOR WEEK ENDING 03/14/1999 [ALSO 2711
NA ID8676404	03/15/1999	¥ Z	Y S	TREATMENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOGISHT FOR WEEK ENDING US/27/1999 [ALSO 2711 BLDG] TO THE ATMENT FACILITY WASTE MONT ABEA WEEKLY INSPECTION FOR BLIT FOR WEEK ENDING 03/08/1000 [ALSO 2711 BLDG]
NA ID86763971	03/29/1999	Z Z	Y Z	SHT FOR WEEK ENDING 03/20/1999 [ALSO 2711] SHT FOR WEEK ENDING 04/04/1999 [ALSO 271]
NA fD86763971	03/29/1999	≨	ž ž	FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 04/04/1999 JALSO 2717
NA [D8676397]	03/29/1999	¥.	Ą	LOG SHT FOR WEEK ENDING 04/04/1999 JALSO 271T
NA [D8676394]	04/05/1999	NA	NA	MENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 04/11/1999 JALSO 271T
NA [D8676394]	04/05/1999	Y Y	Ϋ́	FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 04/11/1999 [ALSO 271T
NA [D8676390]	04/14/1999	¥	¥.	MENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT
NA [D8676387]	04/19/1999	₹ Z	∀ Z	MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 04/25/1999
NA [D8676381]	04/26/1999	≨ :	¥ S	MENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT
NA ID86/6381	04/26/1999	¥	¥	SHI FOR WEEK ENDING 04/30/1999 ALSO 2/11
NA [D8676375]	05/03/1999	Z Z	Z Z	LOG SHI FOR WEEK ENDING 05/09/1999 [ALSO 2717]
NA ID86763701	05/10/1999	₹	¥.	MENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 05/16/1999 JALSO 27/17
NA [D8676366]	05/17/1999	¥.	N N	LOG SHT FOR WEEK ENDING 05/23/1999 JALSO 271T
NA [D8676366]	05/17/1999	N A	A	LOG SHT FOR WEEK ENDING 05/23/1999 [ALSO 271T
NA [D8676364]	05/24/1999	ΑĀ	N N	MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 05/30/1999 [ALSO 271T
NA [D8676364]	05/24/1999	ΑĀ	NA	LOG SHT FOR WEEK ENDING 05/30/1999 [ALSO 271T
NA [D8676364]	05/24/1999	ΝΑ	Ν	LOG SHT FOR WEEK ENDING 05/30/1999 [ALSO 271T
NA [D8676364]	05/24/1999	¥.	N N	LOG SHT
NA [D8676361]	06/01/1999	Ž:	¥ :	MGMT AREA WEEKLY INSPECTION LOG SHT [ALSO 271T BLDG]
NA [D86/6352]	06/07/1999	Y S	¥ \$	TERTIMENT FACILITY WAS IE MOWIL AREA WEEKT INSPECTION LOG SHI FOR WEEK ENDING 66/3/4000 TALED BLDG
NA [D8676336]	06/14/1999	Y Z	Y Y	LOG SHI FOR WEEK ENDING 00/13/1999 [ALSO 2/11]
NA (D86762981	06/21/1999	Z	ž Ž	FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 06/26/1999 JALSO 271T
NA [D8676297]	06/28/1999	¥	NA	MGMT AREA WEEKLY INSPECTION LOG SHT [ALSO 271T BLDG]
NA [D8676296]	07/08/1999	NA	ΑΑ	SHT [ALSO 271T
NA [D8676904]	07/12/1999	ΑĀ	Ϋ́	MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 07/13/1999 [ALSO 271T
NA [D8676904]	07/12/1999	NA A	Ä	SHT FOR WEEK ENDING 07/13/1999 [ALSO 271T
NA [D8676904]	07/12/1999	Z A	N V	MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 07/13/1999 [ALSO 271T
NA [D8676292]	07/21/1999	Y Y	N A	SHT FOR WEEK ENDING 07/25/1999 [ALSO 271T
NA [D8676291]	07/26/1999	Y Y	N A	MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 08/01/1999 [ALSO 271T
NA [D8676291]	07/26/1999	Y Y	Y Y	SHT FOR WEEK ENDING 08/01/1999 [ALSO 271T
NA [D8676291]	07/26/1999	Y Y	Y Y	SHT FOR WEEK ENDING 08/01/1999 [ALSO 271T
NA [D8676290]	08/02/1999	Y Y	Ā	TREATMENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 09/03/1999 [ALSO 271T BLDG]

Trie	TREATMENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 09/03/1999 [ALSO 271T BLDG]	TREATMENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 09/03/1999 [ALSO 271T BLDG]	TREATMENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 08/15/1999 [ALSO 271T BLDG]	TREATMENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 08/15/1999 [ALSO 271T BLDG]	TREATMENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 08/22/1999 [ALSO 271T BLDG]	TREATMENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 08/29/1999 [ALSO 271T BLDG]	TREATMENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 09/12/1999 [ALSO 271T BLDG]	TREATMENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 09/12/1999 [ALSO 271T BLDG]	TREATMENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 09/12/1999 [ALSO 271T BLDG]	TREATMENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 09/24/1999 [ALSO 271T BLDG]	TREATMENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 09/24/1999 [ALSO 271T BLDG]	TREATMENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT [ALSO 271T BLDG]	TREATMENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT [ALSO 271T BLDG]	TREATMENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT [ALSO 271T BLDG]	TREATMENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 10/10/1999 [ALSO 271T BLDG]	TREATMENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 10/10/1999 [ALSO 271T BLDG]	TREATMENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT [ALSO 271T BLDG]	TREATMENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 10/24/1999 [ALSO 271T BLDG]	TREATMENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 10/31/1999 [ALSO 271T BLDG]	TREATMENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 11/07/1999 [ALSO 271T BLDG]	TREATMENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 11/14/1999 [ALSO 271T BLDG]	TREATMENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 11/21/1999 [ALSO 271T BLDG]	TREATMENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT [ALSO 271T BLDG]	TREATMENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT [ALSO 271T BLDG]	TREATMENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT [ALSO 271T BLDG]	TREATMENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT [ALSO 271T BLDG]	TREATMENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT [ALSO 2717 BLDG]	TREATMENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 12/25/1999 [ALSO 271T BLDG]	TREATMENT FACILITY WASTE MGMT AREA WEEKLY INSPECTION LOG SHT FOR WEEK ENDING 12/25/1999 [ALSO 271T BLDG]
Revision	NA	NA A	NA	NA	ΝΑ	ΑN	ΑN	NA A	NA	¥	NA A	NA	Y Y	NA AN	NA	NA	ΝΑ	NA A	NA	NA AN	NA	¥	NA	NA	NA NA	¥	NA A	¥	NA
Sheet	۲A	۲ _×	٧×	Ϋ́	Ϋ́	₹Z	Y.	₹Z	ΨZ	A A	ΑN	AA	AN	YZ YZ	ΑN	YA Y	AN AN	Ϋ́	ΑN	ΨZ	ΑN	ΨN	AN	۲ _A	Y AZ	ΑA	¥,	ξ	٨
	And Color Co																												
OF Document Date	08/02/1999	08/02/1999	08/09/1999	08/09/1999	08/16/1999	08/23/1999	09/07/1999	09/07/1999	09/07/1999	09/20/1999	09/20/1999	09/27/1999	09/27/1999	09/27/1999	10/03/1999	10/03/1999	10/11/1999	10/18/1999	10/25/1999	11/02/1999	11/09/1999	11/15/1999	11/22/1999	11/29/1999	12/06/1999	12/13/1999	12/13/1999	12/20/1999	12/20/1999
Object Name/WEEK OF	NA [D8676290]	NA [D8676290]	NA [D8676288]	NA [D8676288]	NA [D8676286]	NA [D8676285]	NA [D8676284]	NA [D8676284]	NA [D8676284]	NA [D8676281]	NA JD8676281]	NA [D8676279]	NA [D8676279]	NA [D8676279]	NA [D8676278]	NA [D8676278]	NA [D8676277]	NA [D8676276]	NA [D8676275]	NA [D8676274]	NA [D8676271]	NA [D8676267]	NA [D8676257]	NA [D8676264]	NA [D8676255]	NA [D8676260]	NA [D8676260]	NA [D8676252]	NA [D8676252]

Title(s) of Daily Waste Inspection Form: Treatment Facility Waste Management Area Weekly Inspection Log Sheet Treatment Facility Waste Management Area Daily Inspection Log Sheet Treatment Facility Waste Management Area Weekly Inspection Data Sheet Treatment Facility Waste Management Area Daily Inspection Data Sheet Weekly Waste Area Surveillance T Plant Daily Waste Management Area Inspection Data Sheet Date of Review: 8/26/2013 Reviewer's Name: Stephanie Johansen, Don Craig Waste Management Units: 271-T Cage, 211-T Pad, 221-T Sand Filter Pad, 221-T R-5, 277-T Outdoor Storage Area Time Frame of Daily Inspections: January 2000-December 2002, January 2005-December 2007 Items of Concern Noted YES NO⊠ If "YES", complete entire checklist. If "NO", skip to Reviewer's signature and date. Items of Concerns: Attach copies of Daily Inspection sheets noting concern. Dates of Corrective Actions: Attach copies of Daily Inspection sheets noting concern. Reviewer's Signature and Date: Stepsame & Johanse 08/27/13

Page 1 of 2

Instructions:

Review Daily Waste Inspection checklists for any references to unplanned spills, releases or discharges associated with dangerous waste containers. Anomalies that would not affect closure of the unit such as missing labels, open containers, or dented containers, do not need to be documented.

If items of concern are noted, check "YES" and complete the entire checklist. If no items of concern are noted, check "NO" and skip to the signature and date field. Note that if no items of concern are noted for an extended period of time, the "Time Frame of Daily Inspections" can be January 1, 20xx to December 31, 20xx or even several years if no items of concern are noted.

If unplanned spills, releases or discharges are referenced on the inspection checklist, document the item of concern as "spill", "stain", "ruptured container", etc. Also note the date of the corrective action.

Attach copies of daily waste inspection checklists noting the items of concern and corrective actions.

Complete all review fields as applicable.

Sign and date form and deliver to Stephanie Johansen.

Title of Weekly Waste Inspection Form:	Waste Management Area Daily Inspection Report			
	Weekly Waste Area Surveillance			
Date of Weekly Waste Inspection Review:	8/28/13			
Initial Reviewer's Name:	Jeff Bramson			
Final Reviewer's Name:	Lana Strickling			
Waste Management Units: *Note: 277-T not identified on 2004 waste insp	271-T Cage, 221T R5, 277-T, 211-T Pad (WSA) ection sheets.			
Time Frame of Inspections:	2003-2004			
Items of Concern Noted (Circle) If "YES", complete entire checklist. If "NO", skip to Reviewer's signature and date.	YES _X NO			
Items of Concerns (Attach copies of Weekly Ins	pection sheets noting concern.):			
On 6/30/03, a 5-gallon plastic container of product, Insulkote, was identified as leaking in the 271-T Cage. There is no logbook entry denoting amount spilled. A waste designation was performed on 9/10/13 on the product as part of the records review. The waste is designated as a WP03 based on the chemical product designation. Waste designation is attached.				
Dates of Corrective Actions (Attach copies of W	eekly Inspection sheets noting concern):			
final disposition.	akage. An MSDS was submitted to the waste d disposal instructions. No information was located on Have 4/0/13			
	June 1			
Instructions:				

Review Weekly Waste Inspection checklists for any references to unplanned spills, releases or discharges associated with dangerous waste containers. Anomalies that would not affect closure of the unit such as missing labels, open containers, or dented containers, do not need to be documented.

noted, check "NO" and skip to the signature and date field. Note that if no items of concern are noted for an extended period of time, the "Time Frame of Weekly Inspections" can be January 1, 20xx to December 31, 20xx or even several years if no items of concern are noted.

If unplanned spills, releases or discharges are referenced on the inspection checklist, document the item of concern as "spill", "stain", "ruptured container", etc. Also note the date of the corrective action.

Attach copies of weekly waste inspection checklists noting the items of concern and corrective actions.

Complete all review fields as applicable.

Sign and date form and deliver to Stephanie Johansen.

June 30 true July 4, 2003

Inspection for Week of: 6.30.03

Ameson	2	708T Facility	X	2706T	MO433	2147	2117	271T	221T	221T	2777	221T
inspection item	Connex	Building & Yard	98	n.	Sample Storage	9	ASW	Cage WAA	Cps Gallery Sample Storage	Ž		ETEC Vault
.f.4 Area free of combustible debris (WAC 173-303-		7		9			9 (%	7	Ż			
2.1.5 Minimum 20-ft separation with no combustibles between fuel packages (Canyon, Tunnel and 2706-T acility)												
arger combustible items (> 256 cu. ft.) posted aration requirements												
5.1.7 Minimum 5-ft separation with no combustibles maintained between fuel packages (Canyon, Tunnel, and 2706-T facility)		7										
und outdoor waste management stible debris			1	1.			7	1		1		
6.1.9 Fire lanes and inspection aisles > 30" wide and free of obstruction (WAC 173-303-340)			7	1		\	7	7		1	1	
6.1.13 Containment systems dry and free of cracks, gaps, or other detenoration (WAC 173-303-630 (7)(q)(t)			7	1					7			
6.1.15Containers elevated or otherwise protected from accumulated liquids (WAC 173-303-630 (7)(c)(ii))			1					
6.1 16 Barricades in place and in good condition (WAC 173-303-200 (2)(a))						1	1	1				7
6.1.18 Area postings in place, legible, and in good condition (WAC 173-303-200(1)(d))		9 (3)				1			7			7
6.1.19 Containers free of deterioration and show no sign of leakage (WAC 173-303-630 (2))						7)		8		1	1
6.1.22 Containers closed and show no evidence of leakage (e.g., moisture, or stains on the side or undemeath) (WAC 173-303-630 (5)(a)).	1										1	2

Source Document: DO-040-016 Last Printed 1/24/03 § 17 PM June 30 + har July 4,2003

6-30-03

Inspection for Week of:

277T 224T	ETEC	1	7	1	1					ion data silee).			
2217	32			T.		1				Document corrective action(s) on inspection finding and corrective action data		1	Sonature
221T	Ops Gallery Sample Storage			3		,		60 05 3 60 05 3	7	finding and		7	
2711	Cage		7	MA	1	1	7	6.38.49 6.38.49		inspection			To the state of th
2117	WSA		7	ダン	1	7	1	\$5000 \$5000	8	action(s) or		4.2 8.4	
214T	90718		7	7	1	7	7	2000 g		corrective			
110433	Sample Storage			クタ				5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	-				
2706T	TSP	7	1	A. A	1	7	7	100		ctive action	1-03		
	PAD		7	1	7	>	7	C 20 20 20 20 20 20 20 20 20 20 20 20 20	7	quire corre	367-1-03		1
2706T Facility	Building & Yard	>	1	N. M.	- \			3,50		checklist, require corrective action.	6.30 is	Date	
2	Connex		7	N	1			36 37:	7	the above (ſ	
Angeline in the control of the contr	Inspection tem	6.1.23 Containers stored in a way that will not result in Inputure or damage (WAC 173-303-630 (5)(b))	6.1.25 Container labeling and markings are intact, unobscured, legible, complete, and in good condition (MAC, 173-303-63) (3))	6.1.26 TSCA regulated PCB containers labeled with a PCB label and a "Removed from Service" date (40 CEP-761)	6.1.31 Incompatible wastes segregated (WAC 173-303-630 (9)(c))	6.1.32 Waste accumulation container has inventory attached or available	8.1.33 Drums stored in rows no more than 2 drums wide with an aisle space ≥ 30 inches (WAC 173-303-	630 (5)(c)) 6.1.35 Inspector's initials and date and lime area inspected	neral facility housekeeping of areas where tored.	★ NOTE: Any items marked with an "X", on the above	ABrunardh Pet Burns et	Inspector's Printed Name and Signature	3

Source Document: DO-040-016 Less Printed 1/24/03 6:17 PM

Waste Management Area Inspection Finding and Corrective Action Sheet

とうから Inspection for Week of: Findings

7. 5 Carl 2 grote Contains with NOO rewrapped & cleared up leature Submitting MSDS
--

(D)

0

need 3'inchiter took never need working a studies and on large	NOW corrected those issues SAMP	New completed next business day ourc	nul on back
WILCOOD DANGE	3 (1) 4. May Us Dig Lay Together at the TSP By NOO corrected these Bours Shine	Soil 18 Rate was on opened.	proofing, 47000410 on white is the continued on back

Patrick L Patrick & Brunningth Operator Signature ...

(-3003461-3

7-2-63 Date

Printed Name

Supervisor/Signature

Active?: Y

Product Name:

INSULKOTE ET; INSULKOTE PRIMER "E" SCHULLER INTERNATIONAL INC. Manufacturer: MSDS Date:

GC TRINER 06/14/95 Input By:

Reactivity:

Product Usage: COATING (AN EMULSION PRODUCT), ASPHALT

Description:

Physical State: Liquid Density:

pH: 7 Flashpoint: N/A C GC TRINER Butry Date: 02/26/91 SM STEELE Revised Date: 08/07/01 STABLE, INCOMPATIBLE WITH STRONG OXIDIZERS

NWW Limit NWW Limit WW Limit WW Limit UHC OHC CHC z z PERS PERS NA NA TOX IGNT CORR TOX IGNT CORR NA NA NA Reactivity .0002000 D z .0000000 BC % EC % 3.0000000 2.0000000 Weight % Weight % ISOPROPYL ALCOHOL DOOL: WYST GANK 9/10/13 Chemical Name Chemical Name Listed/TC Codes(limit mg/l) BENTONITE 1302-78-9 57-63-0 CAS# CAS#

NWW Limit Limit NWW Limit WW Limit WW OHIC UEC z Z PERS PERS PAH NA TOX IGNT CORR TOX IGNT CORR NA ΝĀ NA NA Reactivity Z z .0000000 .0000000 EC % BC % 48.0000000 50.000000 Weight % Weight % Chemical Name Chemical Name Listed/TC Codes(limit mg/l) ASPHALT WATER 7732-18-5 3052-42-4 WP03 CAS# CAS#

NWW Limit WW Limit DEC DEC z TOX IGNT CORR PERS NA NA NA z .0000000 EC % 4.0000000 Weight % INERT MATERIAL (PAPER, WOOD, PLASTIC, ETC.) Chemical Name GCN055 CAS#

3) Does not met dangerous waste ariteria due to insufficient agricant 1 Does not exhibit dangerous waste Waracteristic per MSDS.

Page 1 of 2

Sum of Weight%: 107.0000000		
Characteristic WAC-173-303-090-5-7	Toxic Dangerous Waste WAC 173-303-100	
Flashpoint < 60C IGNITABLE D001 DW * * OXIDIZER D001 DW	Total BC %: .0002000	Total HOC%: .00000000 Total PAR%: 50.0000000
PH <=2 or >= 12.5 (Liquids) D002 DW (Solids Only) WSC2 DW	No data or EC% < .001 Non-Reg VH	No HOC/PAH or below limits Non-Reg
Reactive D003 DW	EC% >=.001 & <1 WT02 DW	HOC% > 1 WP01 EHW
*Oxidizer defined in 49CFR 173.127 & 173.128	EC% >= 1 WT01 EHW	HOC% 0.01 to 1 WP02 DW PAH% > 1% WP03 EHW
Toxicity Characteristic WAC 173-303-090-8		
TC CODES	5	
MATERIAL USED AS SOLVENTS:	NA	
APPLICABLE WASTE CODES: W POS		
APPLICABLE LDR CODES:		WASTE CLASS: EHW
COMMENTS: Designation provided at ECO requist, from suspected leakat TPlantin 2003. Information provided. Book designation based on MSDS.	request, from suspepted leak.	5
esignation Specialist: TM KISIEMICK	- Myldeelm hr.	9/10/13 Date
The state of the s		****

Page 2 of 2

Title of Weekly Waste Inspection Form:	T Plant Weekly Waste Management Area Inspection Data Sheet
Date of Review:	July 30, 2013
Reviewer's Name:	Paul W. Martin
	2706-T Conex, 2706-T Facility, 2706-T Yard, 2706-T Pad, ge, 214-T, 211-T Cage, 271-T Cage, Boneyard Waste 1-T Pipe Gallery Storage, 221-T R5, 277-T and 221-T SF
Time Frame of Weekly Inspections:	October 18, 2007 - December 31, 2007
Items of Concern Noted (Circle) If "YES", complete entire checklist. If "NO", skip to Reviewer's signature and date.	YES□ NO⊠
Items of Concerns: Attach copies of Weekly Inspection sheets noting of	NA concern.
Dates of Corrective Actions: Attach copies of Weekly Inspection sheets noting of	NA concern.
Reviewer's Signature and Date:	Paul w. neur 9/4/13
Instructions: Poving Wookly Wasta Inspection shocklists for any	v references to unplanned spills releases or discharges

Review Weekly Waste Inspection checklists for any references to unplanned spills, releases or discharges associated with dangerous waste containers. Anomalies that would not affect closure of the unit such as missing labels, open containers, or dented containers, do not need to be documented.

If items of concern are noted, check "YES" and complete the entire checklist. If no items of concern are noted, check "NO" and skip to the signature and date field. Note that if no items of concern are noted for an extended period of time, the "Time Frame of Weekly Inspections" can be January 1, 20xx to December 31, 20xx or even several years if no items of concern are noted.

If unplanned spills, releases or discharges are referenced on the inspection checklist, document the item of concern as "spill", "stain", "ruptured container", etc. Also note the date of the corrective action.

Attach copies of weekly waste inspection checklists noting the items of concern and corrective actions.

	•
Title of Weekly Waste Inspection Form:	T Plant Weekly Waste Management Area Inspection Data Sheet
Date of Review:	July 30, 2013
Reviewer's Name:	Paul W. Martin
	2706-T Conex, 2706-T Facility, 2706-T Yard, 2706-T Pad, 4-T, 211-T Cage, 271-T Cage, Boneyard Waste Storage, lle Storage, 221-T Pipe Gallery Storage, 221-T R5, 277-T
Time Frame of Weekly Inspections:	January 7, 2008 - December 28, 2008
Items of Concern Noted (Circle) If "YES", complete entire checklist. If "NO", skip to Reviewer's signature and date.	YES□ NO⊠
Items of Concerns: Attach copies of Weekly Inspection sheets noting co	NA oncern.
Dates of Corrective Actions: Attach copies of Weekly Inspection sheets noting co	NA oncern.
Reviewer's Signature and Date:	Paula mars 954/13

Instructions:

Review Weekly Waste Inspection checklists for any references to unplanned spills, releases or discharges associated with dangerous waste containers. Anomalies that would not affect closure of the unit such as missing labels, open containers, or dented containers, do not need to be documented.

If items of concern are noted, check "YES" and complete the entire checklist. If no items of concern are noted, check "NO" and skip to the signature and date field. Note that if no items of concern are noted for an extended period of time, the "Time Frame of Weekly Inspections" can be January 1, 20xx to December 31, 20xx or even several years if no items of concern are noted.

If unplanned spills, releases or discharges are referenced on the inspection checklist, document the item of concern as "spill", "stain", "ruptured container", etc. Also note the date of the corrective action.

Attach copies of weekly waste inspection checklists noting the items of concern and corrective actions.

Title of Weekly Waste Inspection Form:	T Plant Weekly Waste Management Area Inspection Data Sheet
Date of Review:	July 31, 2013
Reviewer's Name:	Paul W. Martin
	2706-T Conex, 2706-T Facility, 2706-T Yard, 2706-T Pad, 14-T, 211-T Cage, 271-T Cage, Boneyard Waste Storage, pple Storage, 221-T Pipe Gallery Storage, 221-T R5, 277-T
Time Frame of Weekly Inspections:	January 8, 2009 - December 31, 2009
Items of Concern Noted (Circle) If "YES", complete entire checklist. If "NO", skip to Reviewer's signature and date.	YES□ NO⊠
Items of Concerns: Attach copies of Weekly Inspection sheets noting	NA concern.
Dates of Corrective Actions: Attach copies of Weekly Inspection sheets noting	NA concern.
Reviewer's Signature and Date:	Paul W. mars 9/4/13

Instructions:

Review Weekly Waste Inspection checklists for any references to unplanned spills, releases or discharges associated with dangerous waste containers. Anomalies that would not affect closure of the unit such as missing labels, open containers, or dented containers, do not need to be documented.

If items of concern are noted, check "YES" and complete the entire checklist. If no items of concern are noted, check "NO" and skip to the signature and date field. Note that if no items of concern are noted for an extended period of time, the "Time Frame of Weekly Inspections" can be January 1, 20xx to December 31, 20xx or even several years if no items of concern are noted.

If unplanned spills, releases or discharges are referenced on the inspection checklist, document the item of concern as "spill", "stain", "ruptured container", etc. Also note the date of the corrective action.

Attach copies of weekly waste inspection checklists noting the items of concern and corrective actions.

T Plant Weekly Waste Management Area Inspection Title of Weekly Waste Inspection Form: Data Sheet July 31, 2013 Date of Review: Paul W. Martin Reviewer's Name: 2706-T Conex, 2706-T Facility, 2706-T Yard, 2706-T Pad, Waste Management Units: 243-T, Tunnel Cut, MO-433 Sample Storage, 214-T, 211-T Cage, 271-T Cage, Boneyard Waste Storage, 271-T Mezzanine Tank, 221-T Ops Gallery Sample Storage, 221-T Pipe Gallery Storage, 221-T R5, 277-T and 221-T SF January 7, 2010 - December 30, 2010 Time Frame of Weekly Inspections: NO⊠ YES□ Items of Concern Noted (Circle) If "YES", complete entire checklist. If "NO", skip to Reviewer's signature and date. NA Items of Concerns: Attach copies of Weekly Inspection sheets noting concern. Dates of Corrective Actions: Attach copies of Weekly Inspection sheets noting concern. Paul on man 9/4/13 Reviewer's Signature and Date:

Instructions:

Review Weekly Waste Inspection checklists for any references to unplanned spills, releases or discharges associated with dangerous waste containers. Anomalies that would not affect closure of the unit such as missing labels, open containers, or dented containers, do not need to be documented.

If items of concern are noted, check "YES" and complete the entire checklist. If no items of concern are noted, check "NO" and skip to the signature and date field. Note that if no items of concern are noted for an extended period of time, the "Time Frame of Weekly Inspections" can be January 1, 20xx to December 31, 20xx or even several years if no items of concern are noted.

If unplanned spills, releases or discharges are referenced on the inspection checklist, document the item of concern as "spill", "stain", "ruptured container", etc. Also note the date of the corrective action.

Attach copies of weekly waste inspection checklists noting the items of concern and corrective actions.

Title of Weekly Waste Inspection Form:	T Plant Weekly Waste Management Area Inspection Data Sheet
Date of Review:	July 31, 2013
Reviewer's Name:	Paul W. Martin
	2706-T Conex, 2706-T Facility, 2706-T Yard, 2706-T Pad, 4-T, 211-T Cage, 271-T Cage, Boneyard Waste Storage, le Storage, 221-T Pipe Gallery Storage, 221-T R5, 277-T
Time Frame of Weekly Inspections:	January 7, 2011 - December 29, 2011
Items of Concern Noted (Circle) If "YES", complete entire checklist. If "NO", skip to Reviewer's signature and date.	YES□ NO⊠
Items of Concerns: Attach copies of Weekly Inspection sheets noting co	NA pricern.
Dates of Corrective Actions: Attach copies of Weekly Inspection sheets noting co	NA oncern.
Reviewer's Signature and Date:	Paul or men 9/4/17

Instructions:

Review Weekly Waste Inspection checklists for any references to unplanned spills, releases or discharges associated with dangerous waste containers. Anomalies that would not affect closure of the unit such as missing labels, open containers, or dented containers, do not need to be documented.

If items of concern are noted, check "YES" and complete the entire checklist. If no items of concern are noted, check "NO" and skip to the signature and date field. Note that if no items of concern are noted for an extended period of time, the "Time Frame of Weekly Inspections" can be January 1, 20xx to December 31, 20xx or even several years if no items of concern are noted.

If unplanned spills, releases or discharges are referenced on the inspection checklist, document the item of concern as "spill", "stain", "ruptured container", etc. Also note the date of the corrective action.

Attach copies of weekly waste inspection checklists noting the items of concern and corrective actions.

Title of Weekly Waste Inspection Form:	T Plant Weekl Data Sheet	y Waste Management Area Inspection
Date of Review:	July 31, 2013	
Reviewer's Name:	Paul W. Marti	in The Control of the
Waste Management Units: 243-T, Tunnel Cut, MO-433 Sample Storage, 21 271-T Mezzanine Tank, 221-T Ops Gallery Sample and 221-T SF	4-T, 211-T Cage	
Time Frame of Weekly Inspections:	January 4, 20	12 - December 28, 2012
Items of Concern Noted (Circle) If "YES", complete entire checklist. If "NO", skip to Reviewer's signature and date.	YES	NO
Items of Concerns: Attach copies of Weekly Inspection sheets noting or	NA oncern.	
Dates of Corrective Actions: Attach copies of Weekly Inspection sheets noting or	NA oncern.	
Reviewer's Signature and Date:	Paul	w. mar 9/4/13

Instructions:

Review Weekly Waste Inspection checklists for any references to unplanned spills, releases or discharges associated with dangerous waste containers. Anomalies that would not affect closure of the unit such as missing labels, open containers, or dented containers, do not need to be documented.

If items of concern are noted, check "YES" and complete the entire checklist. If no items of concern are noted, check "NO" and skip to the signature and date field. Note that if no items of concern are noted for an extended period of time, the "Time Frame of Weekly Inspections" can be January 1, 20xx to December 31, 20xx or even several years if no items of concern are noted.

If unplanned spills, releases or discharges are referenced on the inspection checklist, document the item of concern as "spill", "stain", "ruptured container", etc. Also note the date of the corrective action.

Attach copies of weekly waste inspection checklists noting the items of concern and corrective actions.

Title of Weekly Waste Inspection Form:	T Plant Weekly Waste Management Area Inspection Data Sheet
Date of Review:	September 4, 2013
Reviewer's Name:	Paul W. Martin
	2706-T Conex, 2706-T Facility, 2706-T Yard, 2706-T Pad, 4-T, 211-T Cage, 271-T Cage, Boneyard Waste Storage, ble Storage, 221-T Pipe Gallery Storage, 221-T R5, 277-T
Time Frame of Weekly Inspections: *June 12, 2013 was the last complete weekly in	January 3, 2013 - June 12, 2013* aspection record on IDMS as of September 4, 2013.
Items of Concern Noted (Circle) If "YES", complete entire checklist. If "NO", skip to Reviewer's signature and date.	YES□ NO⊠
Items of Concerns: Attach copies of Weekly Inspection sheets noting co	NA oncern.
Dates of Corrective Actions: Attach copies of Weekly Inspection sheets noting or	NA oncern
Reviewer's Signature and Date:	Paul W. mut 9/4/1-

Instructions:

Review Weekly Waste Inspection checklists for any references to unplanned spills, releases or discharges associated with dangerous waste containers. Anomalies that would not affect closure of the unit such as missing labels, open containers, or dented containers, do not need to be documented.

If items of concern are noted, check "YES" and complete the entire checklist. If no items of concern are noted, check "NO" and skip to the signature and date field. Note that if no items of concern are noted for an extended period of time, the "Time Frame of Weekly Inspections" can be January 1, 20xx to December 31, 20xx or even several years if no items of concern are noted.

If unplanned spills, releases or discharges are referenced on the inspection checklist, document the item of concern as "spill", "stain", "ruptured container", etc. Also note the date of the corrective action.

Attach copies of weekly waste inspection checklists noting the items of concern and corrective actions.

Attachment B. T-Plant Unit Number Visual Sampling Plan Supporting Documentation

This page intentionally left blank.

Systematic sampling locations for comparing a median with a fixed threshold (nonparametric - MARSSIM)

Summary

This report summarizes the sampling design used, associated statistical assumptions, as well as general guidelines for conducting post-sampling data analysis. Sampling plan components presented here include how many sampling locations to choose and where within the sampling area to collect those samples. The type of medium to sample (i.e., soil, groundwater, etc.) and how to analyze the samples (in-situ, fixed laboratory, etc.) are addressed in other sections of the sampling plan.

The following table summarizes the sampling design developed. A figure that shows sampling locations in the field and a table that lists sampling location coordinates are also provided below.

SUMMARY OF SAMPLING DESIGN					
Primary Objective of Design	Compare a site mean or median to a fixed threshold				
Type of Sampling Design	Nonparametric				
Sample Placement (Location) in the Field	Systematic with a random start location				
Working (Null) Hypothesis	The median(mean) value at the site exceeds the threshold				
Formula for calculating number of sampling locations	Sign Test - MARSSIM version				
Calculated total number of samples	20				
Number of samples on map ^a	20				
Number of selected sample areas b	1				
Specified sampling area ^c	818.75 m ²				
Size of grid / Area of grid cell ^d	6.53159 meters / 36.9461 m ²				
Grid pattern	Triangular				
Total cost of sampling ^e	\$0.00				

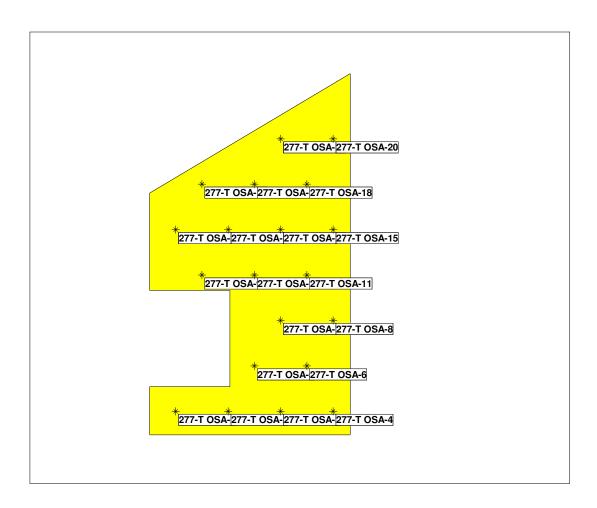
^a This number may differ from the calculated number because of 1) grid edge effects, 2) adding judgment samples, or 3) selecting or unselecting sample areas.

^b The number of selected sample areas is the number of colored areas on the map of the site. These sample areas contain the locations where samples are collected.

^c The sampling area is the total surface area of the selected colored sample areas on the map of the site.

^d Size of grid / Area of grid cell gives the linear and square dimensions of the grid used to systematically place samples.

^e Including measurement analyses and fixed overhead costs. See the Cost of Sampling section for an explanation of the costs presented here.



	Area: 277-T OSA							
X Coord	Y Coord	Label	Value Type		Historical			
3.2602	2.9315	277-T OSA-1		Systematic				
9.7918	2.9315	277-T OSA-2		Systematic				
16.3233	2.9315	277-T OSA-3		Systematic				
22.8549	2.9315	277-T OSA-4		Systematic				
13.0576	8.5881	277-T OSA-5		Systematic				
19.5891	8.5881	277-T OSA-6		Systematic				
16.3233	14.2446	277-T OSA-7		Systematic				
22.8549	14.2446	277-T OSA-8		Systematic				
6.5260	19.9011	277-T OSA-9		Systematic				
13.0576	19.9011	277-T OSA-10		Systematic				
19.5891	19.9011	277-T OSA-11		Systematic				
3.2602	25.5576	277-T OSA-12		Systematic				
9.7918	25.5576	277-T OSA-13		Systematic				
16.3233	25.5576	277-T OSA-14		Systematic				
22.8549	25.5576	277-T OSA-15		Systematic				
6.5260	31.2142	277-T OSA-16		Systematic				
13.0576	31.2142	277-T OSA-17		Systematic				

19.5891	31.2142	277-T OSA-18	Systematic	
16.3233	36.8707	277-T OSA-19	Systematic	
22.8549	36.8707	277-T OSA-20	Systematic	

Primary Sampling Objective

The primary purpose of sampling at this site is to compare a site median or mean value with a fixed threshold. The working hypothesis (or 'null' hypothesis) is that the median(mean) value at the site is equal to or exceeds the threshold. The alternative hypothesis is that the median(mean) value is less than the threshold. VSP calculates the number of samples required to reject the null hypothesis in favor of the alternative one, given a selected sampling approach and inputs to the associated equation.

Selected Sampling Approach

A nonparametric systematic sampling approach with a random start was used to determine the number of samples and to specify sampling locations. A nonparametric formula was chosen because the conceptual model and historical information (e.g., historical data from this site or a very similar site) indicate that typical parametric assumptions may not be true.

Both parametric and non-parametric equations rely on assumptions about the population. Typically, however, non-parametric equations require fewer assumptions and allow for more uncertainty about the statistical distribution of values at the site. The trade-off is that if the parametric assumptions are valid, the required number of samples is usually less than if a non-parametric equation was used.

Locating the sample points over a systematic grid with a random start ensures spatial coverage of the site. Statistical analyses of systematically collected data are valid if a random start to the grid is used. One disadvantage of systematically collected samples is that spatial variability or patterns may not be discovered if the grid spacing is large relative to the spatial patterns.

Number of Total Samples: Calculation Equation and Inputs

The equation used to calculate the number of samples is based on a Sign test (see PNNL 13450 for discussion). For this site, the null hypothesis is rejected in favor of the alternative one if the median(mean) is sufficiently smaller than the threshold. The number of samples to collect is calculated so that if the inputs to the equation are true, the calculated number of samples will cause the null hypothesis to be rejected.

The formula used to calculate the number of samples is:

$$n = \frac{(Z_{1-\alpha} + Z_{1-\beta})^2}{4(SignP - 0.5)^2}$$

where

$$SignP = \Phi \left(\frac{\Delta}{s_{total}} \right)$$

 $\Phi(z)$ is the cumulative standard normal distribution on $(-\infty,z)$ (see PNNL-13450 for details),

n is the number of samples,

 S_{total} is the estimated standard deviation of the measured values including analytical error,

 $\Delta^{(i)}$ is the width of the gray region,

is the acceptable probability of incorrectly concluding the site median(mean) is less than the threshold,

is the acceptable probability of incorrectly concluding the site median(mean) exceeds the threshold,

is the value of the standard normal distribution such that the proportion of the distribution less than $Z_{1-\alpha}$ is $1-\alpha$, is the value of the standard normal distribution such that the proportion of the distribution less than $Z_{1-\alpha}$ is $1-\alpha$.

Note: MARSSIM suggests that the number of samples should be increased by at least 20% to account for missing or unusable data and uncertainty in the calculated value of n. VSP allows a user-supplied percent overage as discussed in MARSSIM (EPA 2000, p. 5-33).

The values of these inputs that result in the calculated number of sampling locations are:

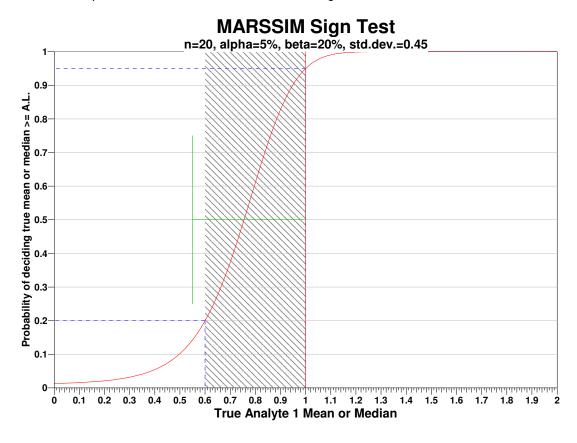
Analyte	na	Parameter
---------	----	-----------

	s	Δ	α	β	$Z_{1-\alpha}^{b}$	Ζ _{1-β} ^c	
Analyte 1	20	0.45	0.4	0.05	0.2	1.64485	0.841621

^a The final number of samples has been increased by the MARSSIM Overage of 20%.

The following figure is a performance goal diagram, described in EPA's QA/G-4 guidance (EPA, 2000). It shows the probability of concluding the sample area is dirty on the vertical axis versus a range of possible true median(mean) values for the site on the horizontal axis. This graph contains all of the inputs to the number of samples equation and pictorially represents the calculation.

The red vertical line is shown at the threshold (action limit) on the horizontal axis. The width of the gray shaded area is equal to Δ ; the upper horizontal dashed blue line is positioned at 1- α on the vertical axis; the lower horizontal dashed blue line is positioned at β on the vertical axis. The vertical green line is positioned at one standard deviation below the threshold. The shape of the red curve corresponds to the estimates of variability. The calculated number of samples results in the curve that passes through the lower bound of Δ at β and the upper bound of Δ at 1- α . If any of the inputs change, the number of samples that result in the correct curve changes.



Statistical Assumptions

The assumptions associated with the formulas for computing the number of samples are:

- 1. the computed sign test statistic is normally distributed,
- 2. the variance estimate, S^2 , is reasonable and representative of the population being sampled,
- 3. the population values are not spatially or temporally correlated, and
- 4. the sampling locations will be selected probabilistically.

The first three assumptions will be assessed in a post data collection analysis. The last assumption is valid because the gridded sample locations were selected based on a random start.

Sensitivity Analysis

The sensitivity of the calculation of number of samples was explored by varying the standard deviation, lower bound of gray region (% of action level), beta (%), probability of mistakenly concluding that μ > action level and alpha (%), probability

^b This value is automatically calculated by VSP based upon the user defined value of α .

^c This value is automatically calculated by VSP based upon the user defined value of β.

of mistakenly concluding that μ < action level. The following table shows the results of this analysis.

Number of Samples								
AL=1		α	:= 5	α=	=10	α=15		
		s=0.9	s=0.45	s=0.9 s=0.45		s=0.9	s=0.45	
	β=15	1103	280	825	209	659	167	
LBGR=90	β=20	948	240	692	176	542	138	
	β=25	826	209	587	149	449	114	
LBGR=80	β=15	280	75	209	56	167	45	
	β=20	240	64	176	47	138	36	
	β=25	209	56	149	40	114	30	
LBGR=70	β=15	128	36	95	27	77	22	
	β=20	110	32	81	23	63	18	
	β=25	95	27	69	20	52	15	

s = Standard Deviation

LBGR = Lower Bound of Gray Region (% of Action Level)

 $\beta = \text{Beta (\%)}$. Probability of mistakenly concluding that $\mu > \text{action level}$

 α = Alpha (%), Probability of mistakenly concluding that μ < action level

AL = Action Level (Threshold)

Cost of Sampling

The total cost of the completed sampling program depends on several cost inputs, some of which are fixed, and others that are based on the number of samples collected and measured. Based on the numbers of samples determined above, the estimated total cost of sampling and analysis at this site is \$0.00, which averages out to a per sample cost of \$0.00. The following table summarizes the inputs and resulting cost estimates.

COST INFORMATION							
Cost Details	Per Analysis	Per Sample	20 Samples				
Field collection costs		\$0.00	\$0.00				
Analytical costs	\$0.00	\$0.00	\$0.00				
Sum of Field & Analytical costs		\$0.00	\$0.00				
Fixed planning and validation costs			\$0.00				
Total cost			\$0.00				

Recommended Data Analysis Activities

Post data collection activities generally follow those outlined in EPA's Guidance for Data Quality Assessment (EPA, 2000). The data analysts will become familiar with the context of the problem and goals for data collection and assessment. The data will be verified and validated before being subjected to statistical or other analyses. Graphical and analytical tools will be used to verify to the extent possible the assumptions of any statistical analyses that are performed as well as to achieve a general understanding of the data. The data will be assessed to determine whether they are adequate in both quality and quantity to support the primary objective of sampling.

Because the primary objective for sampling for this site is to compare the site median(mean) value with a threshold value, the data will be assessed in this context. Assuming the data are adequate, at least one statistical test will be done to perform a comparison between the data and the threshold of interest. Results of the exploratory and quantitative assessments of the data will be reported, along with conclusions that may be supported by them.

Software and documentation available at http://vsp.pnnl.gov Software copyright (c) 2015 Battelle Memorial Institute. All rights reserved.

* - The report contents may have been modified or reformatted by end-user of software.